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ABSTRACT

In order to evaluate ESEA Title I programs conducted during the 1973 school year, an evaluation methodology was developed to provide input from a variety of school personnel and community residents. Specifically the evaluation design provided: (1) qualitative and quantitative data concerning the effectiveness and efficiency of specific Title I components; (2) a cost-effectiveness analysis of the three types of reading materials utilized in the Competitive Reading Partnership; (3) descriptive data concerning the role and effectiveness of instructional and support personnel; (4) assessments of the Title I program by individuals and groups with direct and indirect involvement in its operation; (5) specific recommendations for strengthening future Title I programs, including recommendations concerning particular components and personnel groups. In addition to the actual evaluation, procedures were developed to sustain an effective management and communications system for the Title I program. See TM 004 506 for the instrumentation and statistical methodology employed in this evaluation. (Author/DEP)

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EVALUATION REPORT

ESEA Title I Program for 1972-1973
Public Schools of the District of Columbia

Volume I

Submitted by

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I.

EXECUTIVE SUMMARY

I. EXECUTIVE SUMMARY

A. PURPOSE OF THE EVALUATION

Federal City College was contracted by the District of Columbia to determine the effectiveness of the Title I ESEA Program during the FY 1973 school year, and to make recommendations for strengthening the program in the future. In addition to this one-year evaluation, FCC was asked to develop approaches and data which could be used to sustain an effective management and communications system for the Title I program.

B. EVALUATION METHODOLOGY

The evaluation methodology developed by FCC was designed to provide:

- Qualitative and quantitative data concerning the effectiveness and efficiency of specific Title I components;
- A cost-effectiveness analysis of the three types of reading materials utilized in the Competitive Reading Partnership;
- Descriptive data concerning the roles and effectiveness of instructional and support personnel;
- Assessments of the Title I program by individuals and groups with direct and indirect involvement in its operation;
- Specific recommendations for strengthening future Title I programs, including recommendations concerning particular components and personnel groups.

In order to meet these requirements, FCC developed an evaluation methodology which called for several different levels and types of data collection and analysis:

- A community survey, to determine the extent to which families in Title I communities were aware of the project and/or involved in it;
- Self-assessments of particular Title I components and personnel groups by various categories of Title I personnel, from Parent Volunteer Corps members to Reading Resource Teachers;
- Assessments of the overall Title I program by principals and other key personnel;
- Review of reading pretest and posttest scores and per pupil costs of various types of reading materials used as part of the CRP, to provide effectiveness and cost-effectiveness analysis of Title I reading programs.

The principal source of information about the processes and effects of Title I programs was Title I personnel themselves. Each major group of staff -- administrative, instructional, supplementary, and support -- was asked to describe his Title I responsibilities and activities, assess the components with which they were most involved, and -- in many cases -- evaluate the contributions of other categories of personnel. Computer and manual analysis were used for quantitative and qualitative data; most sample groups were sufficiently small that manual tabulation was feasible even for quantitative data. Where extensive statistical analysis was required, computers were utilized. Analysis methods varied from simple frequency distributions with percentages to cross-tabulations multivariate analysis.

Because of the emphasis upon self-evaluations by Title I personnel, considerable emphasis was placed upon the design of appropriate questionnaires and interview guides. Where sampling was required, random techniques were utilized to permit generalization of findings. The most complex sampling requirements involved in the community survey and the effectiveness and cost-effectiveness study of reading programs.

The entire evaluation methodology was developed to provide the range and depth of data required to identify Title I program strengths and weaknesses and make realistic recommendations for improving individual components, staff utilization, and overall program operations in the future.

C. FINDINGS AND ANALYSIS

Separate evaluations were carried out for:

- Classroom Teachers;
- Reading Resource Teachers;
- Mathematics Resource Teachers;
- Educational Aides;
- Pupil Personnel Services Personnel (by category, including clinical psychologists, speech therapists, psychiatric social workers, health aides, pupil personnel workers and aides);
- Title I Staff Assistants;
- Parent Volunteer Corps Members;
- Title I Administrative Staff;
- Public Elementary School Principals;
- Public Junior High School Principals;
- Non-Public Junior High School Principals;
- Title I City-Wide Advisory Council Members;
- Title I Community Residents.

In addition, student reading achievement scores were determined through review of pretests and posttests.

Each group of personnel interviewed offered a different perspective on the Title I effort. They shared a common concern for improving educational opportunities for children; other common concerns and opinions were discovered. For example:

- Paraprofessionals, regardless of job title, typically considered interaction with children and a developing ability to help them to be their greatest satisfaction within the Title I program;
- Professional personnel typically considered Title I paraprofessionals extremely valuable to the program; educational aides were especially likely to be singled out for praise by classroom and resource teachers;
- Most teachers viewed the Competitive Reading Partnership (CRP) as helpful; CRP materials were typically considered as good as or better than basal readers;
- Many Title I personnel at all levels reported problems related to role definition and interrelationships; paraprofessionals were especially likely to feel that principals asked them to carry out functions not in their job descriptions and that some professionals did not fully accept them;
- There was an almost unanimous concern about administrative difficulties, ranging from late delivery of materials to lack of adequate monitoring and support from the Title I central administrative staff;
- Nearly every category of personnel had some complaint or concern related to inadequate funding. For some, the problem was related to their pay or limitations on hours of work. More often, personnel reported that they were unable to provide Title I services to large numbers of students and families who needed them. Nearly all categories of personnel felt they were over-extended and therefore unable to provide the needed depth of services to individual students or families;

- While every group of personnel could point to Title I problems and limitations, there was broad general belief that Title I is helping the community and a widespread satisfaction with being a part of the District of Columbia Title I program.

D. CONCLUSIONS AND RECOMMENDATIONS

Based on the self-assessments, observation, student test score data, and community survey, the Federal City College evaluation team has offered some specific conclusions and recommendations for strengthening individual Title I components. In addition, conclusions and recommendations are offered which apply to the broader program. Key conclusions and recommendations include the following:

- Title I personnel are generally highly motivated and committed. Paraprofessional personnel reflect an especially encouraging potential for working effectively with Title I children. To the maximum extent possible given funding limitations, paraprofessional categories of personnel should be expanded. All budgeted slots should be filled, and additional slots should be made available where possible. There is special need for more Parent Volunteers, Educational Aides, and Staff Assistants. Use of paraprofessionals should be encouraged especially strongly, because it benefits both the children and the community.

- Although most Title I personnel express a concern for community involvement, the Title I program is not even known by name to the large majority of residents of Title I communities. Only a minority of Title I parents are aware of the program. School-community linkages need to be increased and strengthened; components such as the Parent Volunteer Corps are especially promising in this regard.

- The results of the Competitive Reading Program are mixed and confusing. It appears that the greatest mean increases in reading test scores were found for students not using any of the three types of materials; however, this finding may be a function of assignment of classes to various CRP groups (a variable beyond evaluator control). Of the three companies providing materials for reading programs, D.C. Heath appears to have been responsible for the largest student gains and also to have had the lowest per pupil cost. Thus, D.C. Heath materials are considered more cost-effective than those of McGraw-Hill or Random House.

It is difficult to project long-term effectiveness of the materials, however, after less than one year of use. More analysis is required; it is suggested that provision for evaluation be made in the future whenever new materials are to be introduced, so that a valid evaluation design can be utilized.

- The staff development component of Title I is not providing sufficient or adequate in-service training to most categories of staff. In-service efforts should be better planned, directed more specifically at particular categories of personnel through individual sessions, and expanded to provide sufficient staff development opportunities for every category of personnel.

- The effectiveness and efficiency of many Title I staff is limited by a lack of adequate role definition and clarification. In some cases, it appears that the personnel themselves are not entirely sure about their appropriate roles and responsibilities. More often, the staff members are themselves aware of their appropriate duties, but other personnel appear to have a different concept of their responsibilities. It is strongly recommended that adequate orientation be provided early in the school year to provide role clarification, particularly to assure that professional personnel understand the appropriate roles of paraprofessionals. In addition, Title I schools should periodically hold faculty meetings which include all Title I personnel, including not just teachers and resource teachers but also Pupil Personnel Services team members and paraprofessionals.

- The Title I program suffers from inadequate administrative control and supervision. This is due largely to the inadequate number of administrative personnel. Additional staff members are needed in order to provide coordination and communication among various components of the Title I program, extend the monitoring function, and to provide more efficient and timely response to materials and equipment requests.

- The present Title I program in the District of Columbia simply cannot meet the needs of Title I identified students. At present, some students are refused services for this reason, but many more receive sufficient services to truly improve his or her educational opportunities. This will

> probably mean reducing the number of students served; although such an approach is recognized to be difficult, it is essential if Title I is to have an appreciable effect on individual students and their families.

The Title I program of the District of Columbia is providing beneficial services to thousands of District students and their families. Continuous modifications are needed to reflect improved understanding of the programs and emphasis which offer the best hope of improving student achievement and adjustment and thereby increasing educational opportunities for District children. This report suggests both the progress and the remaining challenges of the Title I educational effort.

II.

EVALUATION METHODOLOGY

II. EVALUATION METHODOLOGY

A. OVERVIEW

Federal City College was contracted by the District of Columbia to determine the effectiveness of the Title I ESEA Program of the District of Columbia School System during the FY 73 school year and to make recommendations for strengthening the program in the future. In addition, the approaches and data provided were to be capable of sustaining an effective management and communication system in the Public Schools.

The evaluation methodology utilized in this study was developed in order to meet several specific contract requirements; of special importance to the design effort were the following:

- The requirement for specific component descriptions and assessments of the elementary reading, math, and secondary reinforcement learning center components;
- The requirement to assess student progress in the elementary reading, mathematics, and secondary reinforcement learning center components;
- The specification of cost-effectiveness analysis of Title I programs;
- The need for descriptive and process data concerning supportive services and the roles of instructional personnel;
- The necessity for providing information useful for strengthening future programs, including component-specific recommendations.

These stated and implied study requirements indicated the need for an evaluation design providing for a combination of:

- Component descriptions and assessments;
- Overall Title I program assessment, based on the perspective of a wide range of personnel and community participants;
- Quantitative data concerning reading and math student achievement and Title I component cost-effectiveness.

The methodology briefly described in this section was developed to meet these varying requirements and needs.

B. TITLE I PROGRAM ASSESSMENTS BY INSTRUCTIONAL PERSONNEL AND COMMUNITY PARTICIPANTS

A significant aspect of the Title I evaluation was the description of instructional and support components and the assessment of these components and the entire Title I effort by the individuals most knowledgeable about them. This description and assessment was provided primarily through the development and administration of questionnaires and interview guides with the following groups: Title I Central Administration staff, reading and math resource teachers, classroom teachers, principals, Educational Aides, Pupil Personnel Team members, Title I Staff Assistants, Parent Volunteer Corps members, City-wide Advisory Council members, and community residents. In general, those individuals with specific Title I program component responsibility (e.g. Parent Volunteers Corps members and Staff Assistants) were asked to describe and assess their own components and roles. Individuals with less direct responsibility (e.g. classroom teachers, principals) were asked to provide more general assessments of the program from their perspective. The over-all approach used to obtain appropriate information and opinions from these various respondents is described below.

1. Use of Questionnaires and Interview Guides

Information was obtained from most of the above groups through personal interviews, using either semi-structured questionnaires (instruments containing a combination of closed-ended and open-ended questionnaires) or interview guides, or through self-administered questionnaires. Interviewing was considered an appropriate means of sampling most of the populations specified above for three reasons:

a. They possess the desired information;

b. They understand the need for providing the information in their specific roles in relation to Title I;

c. They are sufficiently motivated (concerned about making Title I successful) to answer questions accurately, given appropriate instruments.

For several of the above-mentioned groups, self-administered questionnaires are an equally appropriate (and less expensive) means of data collection. Such an approach may be used instead of personal interviews (or in addition to interviews) under the following conditions:

a. When the three conditions specified above apply;

b. When the respondents have the time to provide written responses to a self-administered questionnaire;

c. When the respondents are sufficiently concerned with the importance of the evaluation that they will take the time to complete the instrument;

d. When the respondents have sufficient formal education to be able to understand and correctly fill out a questionnaire;

e. When the information desired can be provided without interaction between the interviewer and respondent (i.e., no probing or explanation is required);

f. When specific control can be exercised over the time available for filling out the instruments, and can specify when and how the questionnaires will be distributed and collected; ideally with the evaluator personally collecting them.

Because self-administered instruments can be used more cost-effectively, this approach was used where the above conditions applied and sample sizes were relatively large (e.g. for the 100 Parent Volunteer Corps members sampled).

2. Development of the Instruments

Questionnaires and interview guides for the study were developed with clear understanding that research results would be no better than the instruments used to collect the data. No matter how sophisticated the analysis plan, vague and ambiguous interview questions produce vague and ambiguous -- often unusuable -- responses. In the development of questionnaires and interview guides for the various respondent groups, the FCC evaluation team followed known research principles and took into account the evaluation purposes. Specific concern was taken with regard to question content, types of questions (factual versus opinion), question wording, question bias, hypothetical questions and questions involving memory, use of personalized questions, question order, and response scaling. Moreover, because it is known that the length of the questionnaire affects both refusal and no response rates and the quality of the data, a major effort was made to see that instruments were as brief as possible, given data requirements.

Consideration given to the following specific factors. (Copies of the instruments are provided in Volume IIC)

a. Question Content

It was necessary for each component and respondent group to determine the purposes of the instrument and the resulting data requirements. On this basis, the content of the instruments could be determined. Every item suggested for inclusion was thoroughly assessed in terms of the amount and value of the data it would yield, and the likelihood that the respondent possessed the knowledge or could obtain the information necessary for giving an accurate and complete answer. Moreover, the likelihood that the respondent might be tempted to mislead, understate, or exaggerate responses was considered, and necessary questions were developed in a form subtle and specific enough to discourage inaccurate responses as well as failure to respond. All items finally included in the instruments (1) provided necessary data in an appropriate form; (2) asked for information which the respondent should be able to provide without undue difficulty; and (3) was stated to encourage accurate responses.

b. Types of Data and Questions

The study required two basic kinds of data, factual information and attitudinal or opinion data. While the major study emphasis was on obtaining as much factual information as possible about Title I program structures, processes, effects, and strengths and weaknesses, opinion data from informed respondents was an important facet of the assessment of specific components or approaches.

Factual and opinion questions demand different formats, and in the case of personal interviews, different interviewer methods. In general, interviewers were allowed somewhat more latitude in the presentation of factual questions; that is, they could assist in the interpretation of the question as required to assure that the respondent understood it. In the case of opinion questions, the interviewer was expected to ask the question in a consistent fashion, as stated in the instrument, to avoid biasing the response, and to avoid interpreting it for the same reason. Interviewer training helped assure that all field personnel understood this concept.

The inclusion of opinion questions presented other problems. It was, for example, necessary to assure that the respondent had the knowledge required to offer a worthwhile opinion; otherwise, his assessment would not be meaningful. More important, there is no correct answer to an opinion question. The respondent's opinion on an issue is likely to be multi-faceted, and the response given to a general opinion question (such as "What do you think of....?") depends upon the aspect of the issue which is uppermost in his mind, the way in which the question is stated, and other factors. A similar problem is that of intensity. An adequate question should record the intensity as well as the direction of the opinion. A closed-ended question may provide little opportunity for recording such information, while an open-ended question allows the respondent to describe his feelings more precisely.

Clearly, answers to opinion questions are especially sensitive to changes in wording, emphasis, sequence, etc. Thus, it was important to determine exactly how such questions should be stated and to place them appropriately within the instrument. In addition, analysis was planned which provided for assessing groups of each respondent's opinion questions together, to assure a full understanding of his response, in context.

c. Question Wording

As already suggested, the wording of questions can greatly affect responses. Insufficient understanding of specific wording effects exists, so it is up to the researcher to protect his instruments from bias through inappropriate wording.

In this study, the following approaches were used. Respondents were provided with specific frames of reference, and questions were framed in terms of respondents' experiences. Words were selected which conveyed the exact meaning desired. Both wording and phrasing were as simple and informal as possible. Vague and ambiguous questions were carefully avoided. Phrases and words such as "kind of", "fairly", "generally", "often", "many", "much the same", and "on the whole" were avoided wherever possible.

d. Question Bias

Specific efforts were made to avoid question bias. One primary approach was to identify and omit questions which, by their content, structure, wording, or sequence, might "lead" the respondent in the direction of making a certain answer. Similarly, questions which provided only some of the possible response categories (such as using incomplete scales, going to "extremely" in one direction but only to "somewhat" in the other direction) were avoided. Words known from previous research to be associated with leading questions were also avoided. In addition, care was taken to assure that the content of a preceding question did not tend to lead the respondent in a given direction.

Similarly avoided were "presuming" questions--which assumed something about the respondents or implied that they necessarily possessed detailed knowledge or opinions on the research subject. Assumptions were stated, not implied. Personalized questions were similarly avoided except where alternative forms could not elicit accurate answers, such as where personal experiences were required.

e. Difficult Questions

Certain kinds of questions are especially difficult to answer. We have already discussed the concern with which complicated phrasing and wording was avoided. Questions can be difficult for other reasons, however. For example, hypothetical questions can be hard to answer; people are not very good at predicting behavior. They often either fail to respond to such questions, add "conditions" to their answers, or provide vague or inappropriate responses. Therefore, a decision was made to take prediction out of the respondent's hands and have the evaluators make predictions as warranted by the data obtained. Hypothetical questions were avoided.

Questions involving memory--retrospective questions--are also difficult to answer. Two major factors were given primary consideration in deciding whether to ask and how to structure memory questions: (1) the length of time since the event took place, and (2) the importance of the event to the respondent. Where events occurred relatively long before the question was asked and were not particularly important to the respondent, retrospective questions were not asked. Where time lapse was not extreme and the event was considered important to the respondent, such questions were used, but were stated clearly and with ample opportunity for respondents to say they did not remember.

f. Question Order

The importance of question order in avoiding bias has already been touched on. Order is important for other reasons; for example, asking sensitive questions is saved for last, the rapport built up during the interview process increases the chances that it will be answered fully. Similarly, complicated questions near the start of a questionnaire may discourage the respondent from completing it. To avoid refusals and high no response rates and to protect the validity of the data, questions which put the respondent at ease were used as opening questions. These were interesting questions which the respondent would have no difficulty answering. More complicated, difficult, and sensitive questions were put near the end. Similarly, factual questions were generally put before opinion ones, and closed-ended before open-ended ones.

g. Types of Scales

Scaling was an important part of the development of the questionnaires, since the types of response categories determined the kinds of analysis which could be carried out on the resulting data. The questionnaires and interview guides were designed to collect nominal, ordinal, interval, and in some cases ratio level data. Only two of the instruments can be clearly identified as representing a specific type of scale (i.e., Thurston, Lippert, Guttman, Semantic Differential). Most instruments involved a combination of several types of scales.

3. Interviewer Selection and Training

Interviewers were needed to carry out personal interviews with several groups of respondents. Staff interviews were carried out by members of the evaluation team. The largest interviewing task was the community survey, for which special interviewers were hired. From 13 applicants, three were selected, based on interviewing capability and experience and on such personal characteristics as honesty, interest, flexibility, and educational level.

The three interviewers received specific field preparation. All were given a copy of the Interviewer's Manual to study before the start of a three-day formal training session. During training, the basic methods of interviewing were discussed through lectures and discussions, and interviewers had ample opportunity for experiential learning through practice interviewing.

Following initial training, interviewers were given field practice, using the actual survey to interview individuals not in the final sample. The training officer accompanied the interviewers during this field practice and gave some demonstration interviews, as well as observing two interviews conducted by each interviewer. The field experience was then further discussed in a formal training session.

By the end of training, the interviewers had received specific instruction and practice in the following topics:

- Initial contact between interviewer and respondent;
- Essential introductory points;
- Use of the identification card;
- General explanation of the purpose of the survey;
- Interviewer individuality in survey explanation;
- Overcoming non-cooperation;
- Conducting the interview;
- Seating;
- Handling of documents;
- Interviewer manner and speech;
- Pace and tone of questioning;

- Probing;
- Closing the interview;
- Role of the interviewer;

Following this training, the interviewers were prepared to carry out the community survey.

Interviews with Title I personnel and Title I parents were conducted by members of the core evaluation team, since semi-structured instruments were utilized and technical knowledge therefore considered necessary.

4. Sampling Methodology

Sampling methodologies varied for different components. Where a small number of personnel were involved, the entire universe of individuals was interviewed. Where a large population was involved, sampling was carried out. Random sampling was typically used, often with the Title I school as the basic sampling unit. Where appropriate, stratification was done, typically on the basis of level (elementary versus junior high school) and participation in the Competitive Reading Partnership.

Specific sampling methods are described in each component evaluation section. The most complex sampling procedure was required for the community survey, which utilized a systematic sampling technique with housing units as the basic sampling unit and census block sampling prior to interval selection of the individual units.

5. Data Analysis

Most of the questionnaires and interview guides utilized for Title I personnel were sufficiently brief, and samples were sufficiently small, that manual analysis was the most cost-effective means of data analysis. Two basic techniques were used:

- Frequency distributions were obtained, with percentages, for all closed-ended questions;
- Content analysis was used to analyze open-ended or free-response questions.

Where sample populations were relatively large, notably for instructional component personnel, and questionnaires long and somewhat complex, computer analysis was carried out. In the case of the instructional component personnel questionnaires, the analysis involved:

- Frequency distributions;
- Cross-tabulations;
- Statistical analysis, including rank correlation techniques, factor analysis, analysis of variance, and analysis of covariance.

A more detailed description of the analysis techniques utilized for that portion of the evaluation is provided in Appendix B. Specific approaches for each component evaluation are described in the sections of this report devoted to each particular component assessment.

C. COST-EFFECTIVENESS EVALUATION OF COMPETITIVE READING PARTNERSHIP PROGRAMS AND SUPPLEMENTAL INSTRUCTION

A major evaluation responsibility of Federal City College's evaluation team was to carry out a cost-effectiveness evaluation of the three different reading programs in use during FY 73 as part of the new Competitive Reading Partnership (CRP). This assessment relied primarily upon comparisons of pretest and posttest scores of students in classrooms utilizing each of the CRP programs, of students in non-participating classrooms, and of students receiving high versus low supplemental instruction.

A detailed description of the sampling and analysis techiques used in that study is provided in the section reporting specifically on that aspect of the evaluation. Sampling was of key importance, both for the primary study involving comparisons among CRP programs, and for the substudy involving comparisons between high and low supplemental reading instruction groups. Because of difficulties in matching individual student pretest and posttests, the classroom was utilized as the primary sampling unit in both cases.

The primary study required a sample including classrooms in each of the four following groupings:

- Using D.C. Heath Reading Program;
- Using McGraw-Hill Reading Program;
- Using Random House Reading Program;
- Using none of the CRP Reading Programs;

It was determined that a multi-stage stratified random sample was required with stratification by pretest score, grade and program.

Moreover, since teachers received the reading program materials at different times during the year, it was decided that no classrooms would be sampled which had not received their materials in November and December 1972. Because the Random House program was in use in the smallest number of classrooms, the number of such classrooms meeting other sampling requirements was determined, and became the N for the study sample. Equal numbers of classrooms in the other program groupings were selected through random sampling.

For the substudy, stratification was not required. A simple random sample was therefore drawn, using the classrooms as the primary unit and the individual students receiving supplemental reading instruction as the secondary unit.

Complex analysis was required to assess the relative effectiveness of the various programs. It is described in detail in the reading program cost-effectiveness evaluation section of this report.

Certain limitations do affect the analysis of data for this particular study. One major constraint is that teachers volunteered (or were "volunteered" by their principals or Title I administrators) for participation in the Competitive Reading Partnership; they were not assigned randomly to use one or another set of program materials. Thus, there is no means of controlling for possible differences in the teachers using the different reading programs. In addition, eliminating classrooms where materials were not received until after January 1, 1973, was necessary to provide a fair measurement of the relative effectiveness of the three CRP programs, since the different companies delivered materials at different times. Any other method might give an unfair advantage to the company which delivered its materials first and therefore had them in use longest. However, this November-December group may differ in some undetermined way from the total group of classrooms.

Review of classroom data, including pretest scores, however, failed to identify any systematic or significant differences in the November-December versus the total group. A final methodological problem for the study was caused by changes in program use; some non-partnership classes began using materials from one of the companies after sample selection, and had to be dropped from the study. Similarly, any classroom in which the teacher changed from one program to another had to be dropped from the sample. Such changes were probably beneficial to the students, but did complicate the evaluation of the CRP programs.

III.

INSTRUCTIONAL COMPONENTS SELF-ASSESSMENTS

III. INSTRUCTIONAL COMPONENTS SELF-ASSESSMENTS

A. SUMMARY

A major focus of the District of Columbia Title I Program in FY 1973 was the improvement of basic skills in reading and mathematics through the combined efforts of classroom teachers, reading and mathematics resource teachers, educational aides, support personnel, and the use of Competitive Reading Program and other special curriculum materials.

Assessment of the reading and mathematics programs in the Title I schools requires both a review of student progress (provided in Section V of this report) and an assessment of the activities, interactions, effectiveness and efficiency of the four major categories of instructional personnel: classroom teachers, reading resource teachers, mathematics resource teachers, and educational aides. This section of the Title I evaluation provides an assessment of the reading and mathematics program, primarily through information supplied by the four groups of Title I staff.

The evaluation describes and assesses the major components of instructional activity, as well as analyzing the utility of staff development activities and the assistance provided through non-instructional components such as the Pupil Personnel Services teams and the Parent Volunteer Corps.

Findings suggest that the Title I instructional personnel are generally carrying out prescribed tasks, that they are generally satisfied with their experiences within the Title I program, and that they recognize the value of the functions of the other categories of instructional staff. Educational aides are viewed very positively by both classroom and resource teachers. A number of program problems are identified, particularly with regard to staff development, the obtaining of adequate curriculum materials on time, and the impossibility of meeting the needs of all Title I identified students with the present number of personnel. Some concerns are expressed about program planning and structure, but most personnel feel that the Title I program is beneficial to its students.

B. COMPONENT OBJECTIVES

As the highest priority instructional components, the reading and mathematics Title I programs in the D. C. Public Schools were developed to improve basic skills in reading and mathematics for Title I identified children in grades kindergarten through three and in grade seven.

The instructional program in reading is expected to employ appropriate and varied media and materials to raise the reading level of identified Title I students, through intensive skill development in the diagnosed areas of need. The objective is to raise the reading level of students in grades 1, 2, 3 and 7, 11 months for the ten month school year. Additionally, the program should prepare kindergarten children for formal instruction in reading.

The goal of the Title I mathematics program is to strengthen the regular mathematics program in the schools by providing special resources and concentrating on the children at each level who need help the most. This greater diversity of mathematical experiences geared to individuals is designed to raise the mathematics level of identified Title I students in grades 1, 2, and 3, by one year. Specific objectives in mathematics are found in the AAP document, A Revision of Specific Objectives for Pupil Performance, Grades 1-6.

C. COMPONENT STRUCTURE AND SCOPE

1. Reading Program

The reading program is designed to improve basic reading skills through a program which focuses upon individualized learning experiences and diagnostic/prescriptive procedures. Materials provided through the Competitive Reading Partnership program are utilized to the fullest extent. The Competitive Reading Partnership reading programs are the major thrust of the Title I program designed by the school system for 1972-1973, with approximately 75 percent of the teachers volunteering for one of the new reading programs.

D.C. Heath has developed the Miami Linguistic Reading Program to meet the needs of non-English speaking children in the primary grades who are reading below grade level. McGraw-Hill has provided a linguistically based programmed reading series, which includes a planned sequence of work attachment skills, word discrimination and comprehension. Random House offers the Hackett Reading System, an individualized learning management system with a detailed hierarchy of outcome skills.

2. Mathematics Program

The mathematics program is designed to improve basic math skills through adding special resources to support the math instructional effort, for identified students.

This prescriptive learning is done in a laboratory setting, where possible. At the elementary level no pupil is to be scheduled, initially, for fewer than two remedial sessions a week. At the secondary level, no fewer than five sessions a week are arranged.

3. Responsibilities of Instructional Personnel

In order to improve educational opportunities for identified Title I children, to improve their reading and math skills, four groups of personnel participate in the Title I instructional effort. The responsibilities of each are summarized below.

CLASSROOM TEACHER

Major responsibility for reading and mathematics instruction rests with the classroom teacher. Through his or her efforts, he or she must instill in students a sense of creativity, interest, enthusiasm, and curiosity. The teacher must provide competent instruction in all subject matter and be able to bring forth additional resources when the situation requires. Each teacher may employ those reading methods considered best in terms of learning styles, instructional needs, and levels of mastery. The school year responsibilities of the classroom teacher are:

1. Recognize and accept the values and contributions of each special subject area to reading and mathematics.
2. Develop alternate methods for integrating reading and mathematics skills with the arts and sciences.
3. Increase competency in:
    a. Learning diagnosis
    b. Prescriptive teaching
    c. Individualization of instruction
    d. Organizing the classroom for learning
    e. Discriminant selection and effective use of learning materials
    f. Exploring the use of human, natural, technological, and material resources in living and learning.

4. Increase competency in the use of the following resources:
    a. Workshops
    b. Resource people within the program
    c. Other classroom teachers
    d. Parents
    e. Outside consultants
    f. Professional materials, e.g., books

READING RESOURCE TEACHER

The reading resource teacher serves as the major instructional resource in reading to both classroom teachers and identified Title I pupils (in need of corrective reading instruction, individually or in groups). Usually, his or her assistance must be requested before it is provided. The reading resource teacher must have two types of expertise:

1. Skill in teaching reading in the classroom.
2. Techniques necessary to relay these skills to classroom teachers.

This special teacher plays a primary role in assembling services for teachers through the following functions:

1. Providing assistance to the reading specialist in identifying the needs of Title I students in grades kindergarten through 3.
2. Locating the appropriate resources.
3. Bringing together the teacher and supportive services.
4. Maintaining liaison with all areas of support.

The primary function of the reading resource teacher, however, is working with small groups of children in varied activities to develop, extend, or reinforce basic skills in reading. There should be one reading resource teacher for every 8 to 10 classroom teachers in grades K - 3.

MATHEMATICS RESOURCE TEACHER

The math resource teacher provides supplementary instruction for identified Title I children requiring remedial work in mathematics. This additional instruction should be in small groups, ideally 4 to 6 students, but never with more than ten pupils per group. This teacher should:

1. Establish rapport with students having varied needs.
2. Generate interest in the study of mathematics.
3. Organize a sequential instructional program based upon objectives in the aforementioned AAP document.
4. Use a variety of instructional aids to account for individual differences among students.
5. Use appropriate evaluative instruments--standardized and teacher-made.
6. Maintain a systematic record of student progress.
7. Confer with regular classroom teachers concerning the progress and needs of students in the remedial math program.

There should be a math resource teacher for every 8 to 10 classroom teachers in grades K - 3.

EDUCATIONAL AIDE

To maximize opportunities for the improvement of academic achievement of identified pupils, it is necessary to provide the classroom teacher with support to make the instructional program more manageable and provide a source of additional and individualized instruction in the classroom setting. The educational aide is a para-professional who provides that support to the classroom teacher, by working with Title I students on an individual or group basis; and by assuming or assisting with non-teaching duties necessary to the efficient operation of the classroom.

The primary duties of the educational aide are as follows:

1. Instruction-related:
    a. Prepare and play reading and math games.
    b. Collect and distribute instructional materials, supplies, and homework.
    c. Correct and score tests.
    d. Supervise small groups engaged in reading and writing.
2. Non-teaching activities:
    a. Assist children in toiletry and hygienic functions.
    b. Develop and maintain contact with parents.
3. Technical:
    a. Duplicate material.
    b. Prepare audio-visual materials.
4. Clerical:
    a. Maintain health, attendance records.
    b. Maintain student files.
5. Housekeeping
6. Monitorial
7. Homework Center Assistance (after school):
    a. Aid students in homework completion.
    b. Maintain materials supply (paper, rulers, etc.).

Educational aides have been employed in the D. C. Public Schools since the inception of the Title I program. The 1972-1973 school budget provided for 378 aides at the elementary level. The number of aides assigned to each Title I school is proportionate to the number of identified children. There should be one educational aide for every classroom teacher in grade 3 and one for every two classroom teachers in grades K - 2.

Recruitment and hiring of aides is handled by the Title I staff office. Recruits are selected, based upon appearance, ability to relate to others, maturity and stability (attendance, promptness, even temperament), knowledge and ability to acquire knowledge, interest in children, and good oral and written communications skills. In addition, all educational aides must have a high school diploma.

4. Staff Development

A primary consideration in the quality of instruction provided students is the professional development program afforded teachers and Title I program staff, as well as parents.

The overall goal of the Title I staff development program is to provide a systematic mechanism for orientation, instruction, and problem solving for all personnel who instruct and manage. Specifically, each participant will:

1. Acquire specific knowledge of the purpose, intent, and methods of operation of the D. C. schools and Title I Plan of Operation.
2. Acquire knowledge regarding federal guidelines for ESEA, Title I.
3. Identify instructional and managerial strengths and weaknesses, compare them with those required in the Title I program, and by the end of the Staff Development Unit have acquired those skills necessary for successful participation.

The program consists of three phases:

1. Orientation (one-half day) - attendance required on a city-wide basis.
2. Title I Educational Institute - week long intensive instructional period, on a staggered basis.
3. Follow-up seminars/workshops - focus on instructional issues, problems, and practices.

D. EVALUATION METHODOLOGY

The study provides an assessment of the effectiveness of four instructional components: resource reading teacher, resource math teacher, classroom teacher, and educational aide. Analysis of the findings should permit identification of:

- The extent of compliance among the instructional components in carrying out prescribed duties.
- Innovative techniques developed and used by the instructional components in furthering the goals and intent of the Title I program.
- Positive interaction among the instructional components and supportive services.
- The worth of the Title I program in providing aid to the most needy, deprived children.
- Suggestions for improvement of the District of Columbia Title I program.

The information needed to fulfill study objectives was elicited from four questionnaire sources: (1) reading resource teacher, (2) math resource teacher, (3) classroom teacher, and (4) educational aide. Each questionnaire was independently analyzed against its particular program requirements (e.g., did the educational aides accomplish all duties and responsibilities as set forth in the Plan of Operation, such as preparing audio-visual materials?). The study analyzes these four instructional components both individually and collectively in assessing their impact on the total program.

1. Sampling

The sampling technique and sample size determination for Title I personnel was indirectly determined through sampling procedures based upon composition of the elementary school student population. Such a sample plan was designed to investigate the effectiveness of three programs (Competitive Reading Partnership) and the relationship between classroom reading programs and supplemental reading instruction provided identified students by the resource reading teacher.

The classroom was chosen as the primary sampling unit; consideration was given to schools and individual students, but both proved disadvantageous as a sampling framework. Therefore, all classrooms that contained identified Title I students were eligible for inclusion in the sample of students: they then were stratified by the various reading programs. Stratified probabilistic sampling was used in the selection of sampling units at all stages of the analysis plan. However, individual strata sample sizes were not necessarily proportionate to population values.

All Title I personnel (classroom teacher, resource teachers, education aides) associated with the primary sampling unit, i.e., classrooms, were included in the survey. Although resource teachers and educational aides were attached to additional classrooms not covered in the sampling framework, this in no way affected the analysis.

The oribabilistic sampling techniques used in the selection of classrooms also apply to the samples of Title I personnel, i.e., the data may be used inferentially.

2. Date Collection

Instruments for all Title I personnel were delivered during the last week of May, 1973, to each sample participant in the schools where the sample classrooms were located. Participants were assured of anonymity and their cooperation was urged; questionnaires were collected the following week. The number of returned questionnaires suitable for data analysis is shown below:

1. Classroom teachers - 116
2. Reading resource teachers - 48
3. Math resource teachers - 44
4. Educational aides - 102

After the data had been collected, they were edited and then coded for machine tabulation.

DATA TYPES

Each questionnaire was designed to reveal pertinent and useful information about each instructional component and the interaction among components and other program elements. A variety of question forms were used: free-answer, dichotomous, and multiple choice. The free-answer, or open-ended questions were used frequently where formal structure could not be determined. Each questionnaire differed in its reliance upon specific question forms but all answers depended upon the frankness and honesty of the surveyed respondents.

3. Data Analysis

Data were computer-tabulated to yield frequency distributions for all quantitative data. Cross-tabulations were then made, and a statistical analysis was undertaken of the basic relationships between key output measures and selected predicator variables. Appropriate tests of significance were utilized where comparisons were made among the four components. Some data proved inappropriate for such analysis due to question format or response ambiguity or inappropriateness. In order to reduce the data to a manageable size and form for detailed analysis, the following procedures were undertaken:

1. Preliminary assessment of the interrelationships of various dependent and independent variables was effected by simple rank correlation techniques and through analysis of correlation matrices.

2. Factor analysis was used, and found particularly valuable in the analysis of the educational aide questionnaire data.

A thorough description of the analytical techniques used is found in Volume II.

E. FINDINGS AND ANALYSIS

1. Classroom Teacher Self-Evaluation

The classroom teacher is the focal point of all instructional activities within the classroom. To be effective, in terms of pupil achievement, the classroom teacher must bring together all resources and services available through Title I. He or she must not only provide instruction, but also utilize resource teachers and education aides whenever his or her time or abilities do not permit personal involvement.

In order to assess classroom teacher effectiveness, questionnaire data were analyzed against internal criteria that resemble stated component objectives. These criteria are:

1. Average number of reading sessions per week given by resource teacher.
2. Coordination of reading resource teacher's instruction with regular classroom teacher's instruction.
3. Sufficiency of feedback received from reading resource teacher concerning pupil progress in remedial instruction.
4. Received in-service training.
5. Usefulness of in-service training activities.
6. Adequacy of in-service training.
7. Effectiveness of the Competitive Reading Partnership materials.
8. Rating of assistance received from resource teachers.
9. Duties performed by education aide.
10. Overall contribution of Title I to the education of students.

The remaining questionnaire variables, when useful, are correlates of these ten criteria and were cross tabulated to exhibit important relationships. Major elements of the questionnaire data were grouped to facilitate systematic and logical analysis. The order and identification of each section is presented to aid comprehension and reading ease:

1. Background information - the age, education level, and teaching experience of classroom teachers.
2. Staff development activities - discussion of in-service training provided teachers, benefits derived, types and frequency of training.
3. Instructional activities - instruction materials and their frequency of utilization and effectiveness.
4. Utilization of resource teachers - services provided, degree of coordination, and rating of assistance received.
5. Supportive services - duties performed by educational aides and parents; participation in cultural activities; usefulness of Title I personnel in meeting objectives of the classroom teacher.
6. Title I accomplishments and problems - frequently encountered problems; satisfaction as a Title I classroom teacher; overall contribution of Title I to the education of pupils.
7. Conclusions.

BACKGROUND INFORMATION

The sample of classroom teachers consisted of 116 respondents, 99.1 percent of whom (all but one) were female.

Respondents were asked to indicate their highest degree: 74.5 percent had received a Bachelor's degree while the remaining 25.5 percent had earned a Master's degree. The average age of teachers in the sample is approximately 37 years.

The total number of years as an elementary teacher by the total number of years taught in a Title I school is presented in Table 3.1. An average of 2.2 years experience in Title I schools was found for these

TABLE 3.1 TOTAL YEARS AS AN ELEMENTARY CLASSROOM TEACHER BY TOTAL YEARS TAUGHT IN TITLE I SCHOOL (Percent Responding)

	Title I Experience					
	Percent				Total	
Total Teaching Experience	1-2	3-4	5-6	7-8	Percent	No.
1-5	75.0	25.0	--	--	100.0	24
6-10	83.3	6.7	3.3	6.7	100.0	30
11-15	55.5	33.3	11.2	--	100.0	18
> 15	82.3	5.9	--	11.8	100.0	17
Total Number of Respondents	67	15	3	4		89

teachers, with a maximum of eight years of experience. Regardless of the length of total teaching experience, few teachers (7.9 percent) had taught in Title I schools more than four years, and three-quarters of respondents had been teaching for less than three years.

STAFF DEVELOPMENT ACTIVITIES

A major portion of the questionnaire addresses staff development activities for classroom teachers. The intended purpose of such a program is to provide each teacher with the knowledge, attitudes and skills necessary to further the learning process for Title I students.

Approximately 75 percent of teachers surveyed had received in-service training during the current school year. The reported usefulness of various in-service training activities is shown in Table 3.2. This table includes respondents who had received in-service training in the current and in previous school years. All activities proved helpful, with coursework in teaching reading providing the most beneficial effect. Even the lowest category (observation of experienced teachers) proved useful to 71 percent of the teachers surveyed. There were no significant differences in the response distribution among training activities.

Number of sessions participated in were reported as follows:

Sessions	Percent
1	28
2	40
3	24
4	8
	100

TABLE 3.2 USEFULNESS OF STAFF DEVELOPMENT ACTIVITIES*

	Degree of Usefulness									
	Great Help		Some Help		Little Help		No Help		Total No.	
Activity	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Coursework in teaching reading	9	32.2	15	53.5	3	10.7	1	3.6	28	100.0
Workshop conducted by math resource teacher	13	34.2	19	50.0	3	7.9	3	7.9	38	100.0
Staff development activities conducted by reading dept.	18	40.0	18	40.0	7	15.6	2	4.4	45	100.0
Workshops conducted by reading resource teacher	11	24.4	25	55.6	6	13.3	3	6.7	45	100.0
Observations of experienced teachers	9	37.5	8	33.3	4	16.7	3	12.5	24	100.0

(N = 89)

* Included respondents who had received in-service training in prior school years

An average of two staff development sessions was reportedly attended by teachers, although only 25 responded to the question.

The quality of the staff development program cannot necessarily be measured by the number of sessions conducted; the content and length of these training programs are of interest. In-service training areas by the number of course hours are listed in Table 3.3. A significantly greater number of respondents received training concerning the Title I Plan of Operation than received other kinds of training; an average of eight hours of instruction in this topic was received by the 22 respondents. Orientation and knowledge of the overall program objectives was a more frequent area of study than the four content areas of Psychological Factors in Poverty. Although only seven teachers received training in Education Methodology, an average of 7.7 hours of instruction was provided. Such instruction is aimed at the remediation of learning difficulties and the development of diagnostic/prescriptive instructional methods. Again, attention must be paid to the small numbers of teachers responding or participating.

The staff development program allows classroom teachers five release days to participate in on-going training sessions designed to upgrade their professional skills. More than three-quarters of the sample felt these workshops were effective and beneficial. While attending these workshops, the teacher's class was supervised primarily by substitute teachers (43 percent) and Title I Substitute Corps personnel (28 percent). Educational aides were left in charge less than two percent of the time. The complete distribution is shown below:

TABLE 3.3 IN-SERVICE TRAINING AREAS BY HOURS OF TRAINING

Training Area	1-5	6-10	11-15	15	Total Number*	Average Hours
Title I Plan of Operations	41	32	9	18	22	8.0
Federal Title I Guidelines	75	25	--	--	4	4.8
Self-analysis of strengths and weaknesses	67	33	--	--	6	4.2
Relationship between race, social class, and poverty	75	25	--	--	4	3.5
Strengths of the child of poverty	67	33	--	--	3	3.7
Poverty cycle intervention	100	--	--	--	1	2.0
Education Methodology	43	43	--	14	7	7.7

(N = 47)

* Six respondents did not indicate hours of training

Substitute	Percent
Substitute Teacher	43.0
Title I Substitute Corps	28.0
Pupils sent to other rooms	6.5
Educational aide	1.9
Other personnel	20.6

(N = 107)

One of the best indicators of the success of the staff development program is a rating by knowledgeable and competent personnel. Such a rating of in-service training received was cross-tabulated by other variables to discover important and interesting relationships. It was hypothesized that those teachers rating their in-service training as adequate would also feel that released time workshops are effective means of acquiring training. This relationship is examined in Table 3.4. Of those teachers who felt workshops were effective or very effective, 70 percent rated their in-service training as adequate or very adequate.[1] These results can be examined in another manner: of those teachers who rated their in-service training as adequate or very adequate, nearly 90 percent felt workshops to be effective or very effective.

More than 35 percent of the sample find their in-service training inadequate.

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[1] This percentage is computed by combining all frequencies and dividing by the sum of the relevant marginals.

TABLE 3.4 RATING OF IN-SERVICE TRAINING BY EFFECTIVENESS OF RELEASED TIME STAFF DEVELOPMENT WORKSHOPS

	In-Service Training*				Total	
Workshop Rating	Very Adequate	Adequate	Not Very Adequate	Not Adequate	Percent	No.
Very Effective	17.4	56.6	21.7	4.3	100.0	23
Effective	2.3	65.9	13.6	18.2	100.0	44
Not Very Effective	--	45.5	45.5	9.0	100.0	11
Not Effective	--	25.0	50.0	25.0	100.0	4
Total Number	5	48	18	11		82
Column Percentage	6.1	58.5	22.0	13.4		100.0

p .10

(N = 82)

* Cells percentages are based on row totals

Reasons for dissatisfaction with the staff development program are gathered from a question asking for lists of things liked least about the Title I program. No frequency count of individual responses was done, but a partial listing of types of complaints follows:

1. Workshops poorly planned.
2. Presentation of material repetitious and boring.
3. Scheduling problems.
4. Too few training sessions.

Although a significant percentage of respondents thought the staff development program inadequate, it was not one of the major complaints of the Title I program.

Although more than one-third of the sample found their in-service training inadequate, nearly 72 percent felt their ability to diagnose specific reading deficiencies of pupils would be improved by October 1973. Only two percent indicated they were less prepared the following fall. The exact reasons for such responses are unclear: it might mean that staff development activities are responsible or it could imply that classroom experiences or interaction with other Title I personnel have improved the ability of the teacher in diagnostic skills.

INSTRUCTIONAL ACTIVITIES

To attain maximum pupil achievement, the classroom teacher must develop responsive curriculum materials and provide competent instruction through the use of available reading and math resources. Where feasible, individualized or small group instruction is the goal for deprived children.

Teachers are allowed to employ those instructional methods they consider most useful in raising the reading and math levels of their pupils. Materials available through the Competitive Reading Partnership Program are good examples of reading and math resources. Such materials are provided by McGraw-Hill, Random House, and D. C. Heath. Several questions were directed at the effectiveness of this program. This section is divided into two parts: group organization for instruction and Competitive Reading Partnership materials.

GROUP ORGANIZATION FOR INSTRUCTION

The average class enrollment size for those teachers surveyed was 26.7. Within their classes, an average of 18 students were identified for Title I reading and math instruction. (Those students receiving remedial math were not necessarily the same students receiving reading instruction.) Table 3.5 presents the frequency distribution for the three variables discussed. According to these data, about two-thirds of the average classroom population was identified Title I pupils. Of those students identified for remedial reading, an average of eight pupils per class received regular instruction from the Title I resource teacher. This average was fairly constant from September 1972 through May 1973. Respondents also indicated that an average of nine pupils received reading instruction from the regular D. C. School budget reading specialist during the 1972-1973 school year; these were all identified students.

The Title I Plan of Operation states that all reading instructional activities are to be planned on the basis of program goals and instruc-

TABLE 3.5 CLASSROOM ENROLLMENT SIZE

Total Class Enrollment	No.	Percent
< 25	28	24
25-29	71	61
> 29	17	15
	116	100
Mean 26.7		
Std. Dev. 3.3		

(N = 116)

	Title 1 Pupils			
Classroom Enrollment	Reading		Math	
	No.	Percent	No.	Percent
5-9	9	9.3	10	10.5
10-14	19	19.6	19	20.0
15-19	29	30.0	26	27.4
20-24	18	18.5	20	21.0
25-29	19	19.6	17	17.9
29	3	3.0	3	3.2
	97	100.0	95	100.0
	Mean	18.3		17.8
	Std. Dev.	2.9		2.7

tional objectives for the pupil. The minimum number of remedial reading sessions per week is not stipulated. However, guidelines for the Title I mathematics program state that no fewer than two sessions per week will be scheduled for pupils at the elementary level. At the secondary level, no student should be scheduled for fewer than five sessions per week. The average number of reading sessions per week by the average number of minutes per session is shown in Table 3.6. The average length of sessions was moderately correlated with the average number of weekly sessions (Kendall's tau = .371).[2] This indicated that the greater the number of weekly sessions, the longer the duration (in minutes) of each session. The average length of each weekly session was approximately 30 minutes. The average number of weekly reading sessions reported by all respondents was 2.9, but more than 12 percent of teachers surveyed arranged for only one weekly reading session from resource reading teachers.

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[2] The Kendall rank correlation coefficient, τ (tau), is a suitable nonparametric measure of association with ordinal scale data.

TABLE 3.6 AVERAGE NUMBER OF WEEKLY READING SESSIONS BY LENGTH OF SESSION (IN MINUTES)

	Length of Session (In Minutes)			Total	
Weekly Sessions	1 - 20	21 - 40	41 - 60	No.	Percent
1	1	10	1	12	12.2
2	5	24	5	34	34.8
3	2	17	3	22	22.4
4	--	9	3	12	12.2
5	--	14	4	18	18.4
Total	8	74	16	98	100.0

Title I guidelines indicate that, where possible, individualized or small group instruction is to be provided for identified pupils. Pupil organization for instruction by total class enrollment is presented in Table 3.7. Stratification by class enrollment does not produce a different structure than by simply looking at the total number responding in each group size category. Including those respondents who marked a combination of small and individualized group instruction, these categories account for more than 80 percent of ways in which students are organized for instructional purposes. The majority of these arrangements are in small groups.

When receiving remedial instruction from reading resource teachers, 21 percent of respondents reported their students missed part of their regular classroom reading instruction. Student removal from their regular classroom to take reading from a resource teacher is accomplished through a schedule that does not vary from week to week, according to 95 percent of the teachers surveyed.

COMPETITIVE READING PARTNERSHIP MATERIALS

A major source of instructional materials which focus on the special needs of Title I students are reading and mathematics materials supplied through the Competitive Reading Partnership. (CRP). Only 52 percent of respondents said they were using materials provided through this program. CRP materials are supplied through three companies: the usage of materials through each company is shown in Table 3.8. Materials received from McGraw-Hill are reportedly used by the largest group of teachers.

TABLE 3.7 PUPIL ORGANIZATION FOR INSTRUCTION BY TOTAL CLASS ENROLLMENT SIZE

	Pupil Organization*				
Class Size	Small	Large	Individualized	Combination	Total No.
< 25	59.3	3.7	14.8	22.2	27
25-29	55.9	2.9	10.3	30.9	68
> 29	64.7	5.9	--	29.4	17
Number Responding	6.5	4	11	32	112
Percent of Total	58.0	3.6	9.8	28.6	100.0

(N = 112)

* Cells are row percentages

The decision to use these instructional materials was usually made by the classroom teacher, as presented in Table 3.9. The choice was made by the classroom teacher 60 percent of the time and by the school principal 22.5 percent of the time.

To obtain maximum benefit from these CRP materials, they must be used frequently. The frequency of use of CRP is found in Table 3.10. Of those teachers who stated they used CRP materials, 80 percent used them daily.

It is important to note the use of these materials, i.e., whether they were used instead of the basal reader or in addition to the regular instruction course. Rated effectiveness of the CRP materials compared with the basal reader is also important. Table 3.11 shows the relationship between use of CRP materials and their effectiveness in comparison with the basal reader. CRP materials are used exclusively by 57 percent of respondents. Regardless of the extent of usage, most teachers (83.6 percent) feel the Competitive Reading Partnership materials are effective when compared with the basal reader. As would be expected, CRP materials are used instead of the basal reader primarily by teachers who consider them effective.

In addition to the reading and mathematical materials supplied through the CRP, 70 percent of teachers said they had received other types of new materials. Of those responding, 93 percent indicated the materials were useful. Unfortunately, there is no mention of the content or nature of these supplementary materials.

TABLE 3.8 SOURCE OF MATERIALS FOR THE COMPETITIVE READING PARTNERSHIP

Supplier	Percent
McGraw-Hill	38
Random House	30
D.C. Heath	32
	100

N = 50

TABLE 3.9 DECISIONMAKER AS TO USE OF COMPETITIVE READING PARTNERSHIP MATERIALS

Decisionmaker	Percent
Classroom Teacher	60.0
Principal	22.5
Reading Task Force	7.5
Office of Federal Programs	5.0
Division of Instructional Services	2.5
Other	2.5
	100.0

N = 40 (Only those stating they used CRP materials)

TABLE 3.10 FREQUENCY OF USE OF COMPETITIVE READING PARTNERSHIP MATERIALS*

Frequency	Number	Percent
Daily	32	80
Four times a week	2	5
Three times a week	2	5
Other	4	10
Total	40	100

* Only those respondents who stated they used CRP materials

TABLE 3.11 EFFECTIVENSS OF COMPETITIVE READING PARTNERSHIP MATERIALS COMPARED TO BASAL READER BY USE OF CRP MATERIALS

Effectiveness	Instead of Basal Reader	In Addition to Basal Reader	Other	Total No.	Total Percent
Very Effective	31.3	21.9	20.0	23	27.1
Effective	60.4	46.9	80.0	48	56.5
Not Very Effective	8.3	21.9	--	11	12.9
Not Effective	--	9.4	--	3	3.5
	100.0	100.0	100.0		
Total Number	48	32	5	85	100.0
Column Percentage	56.5	37.6	5.9		100.0

$p < .20$

Classroom teachers were asked to indicate whether or not they were provided with sufficient materials to individualize their teaching of reading and math using the diagnostic/prescriptive approach (as stated in the Plan of Operation). Thirty-seven percent felt they were not supplied sufficient materials to individualize their teaching approach. Such a view is reinforced through analysis of other questionnaire variables, e.g., problems encountered by Title I classroom teachers.

UTILIZATION OF RESOURCE TEACHERS

Reading and mathematics resource teachers provide valuable assistance to regular classroom teachers. They are expected to provide in-service education and training to teachers and parents as well as providing supplemental learning skills to identified Title I students. This section related the attitudes and opinions of regular classroom teachers as to the skills of resource teachers and how well they convey their expertise to others.

One of the staff objectives of the Title I program for classroom teachers is increased competency in the use of resource teachers. This implies instruction by resource teachers in remedial pupil instruction. During the 1972-1973 school year, 57 percent of respondents requested assistance from reading resource teachers for professional improvement; 67 percent required similar aid from math resource instructors.

Resource teachers are also the major instructional resource in reading and mathematics to both teachers and identified Title I students. A free flow of communications between regular and resource teachers is necessary to meet the needs of pupils. Requests made to the reading resource teacher in regards to identified pupils and requests made by reading resource teachers are identified in Table 3.12. One-third of the classroom teachers surveyed did not feel the reading resource teacher's instruction was coordinated with their teaching of identified pupils.

It is especially important to determine the sufficiency of feedback received from the reading resource teacher concerning the progress of pupils instructed. The sufficiency of feedback and reasons for not receiving adequate feedback are listed in Table 3.13. Although 61 percent find the amount of feedback sufficient, 39 percent do not find it adequate. The most frequently cited reason for insufficient feedback among those responding was that resource teachers did not have enough time to engage in such communications, although 14 percent stated resource teachers thought feedback unnecessary. Table 3.14 shows the relationship between sufficiency of feedback and a rating of the assistance received from resource teachers. Marginal totals give the distributions to each of the two variables, separately. More than 22 percent rated resource teacher assistance as "fair to poor". There is a strong relationship between these two variables ($X^2 = 30.28$, 9 df); that is, those receiving sufficient feedback also rate assistance from resource teachers as beneficial. Exceptions are noted: many respondents who felt feedback insufficient also thought resource teacher assistance to be quite adequate.

TABLE 3.12 INFORMATION REQUESTS CONCERNING IDENTIFIED PUPILS BETWEEN CLASSROOM AND READING RESOURCE TEACHERS

Requests Made to Reading Resource Teacher*	Percent
Work directly with pupils	50.9
Provide individual diagnosis of reading deficiencies	44.8
Provide consultation concerning identified pupils	27.6
Offer prescriptive strategies to correct reading deficiencies	19.0
Provide special reading materials	15.5
None	14.7

(N = 116)

Request Made by Reading Resource Teacher*	Percent
Identification of specific skill deficiencies to be remediated	50.0
Coordination of efforts in remediating pupil reading weaknesses	44.4
None	24.4

(N = 115)

* More than one category could be checked

TABLE 3.13 SUFFICIENCY OF FEEDBACK RECEIVED FROM READING RESOURCE TEACHER AND REASONS FOR INSUFFICIENT FEEDBACK

Sufficiency of Feedback	Percent
Quite Sufficient	15.0
Sufficient	45.8
Not Quite Sufficient	20.6
Not Sufficient	18.6

(N = 107)

Reasons for Insufficient Feedback	Percent
Resource teacher lacks time	42.9
Classroom teacher lacked time to confer	21.4
Resource teacher thought feedback unnecessary	14.3
Classroom teacher thought feedback unnecessary	2.4

(N = 42)

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[1] Those responding to the previous part in the following manner: not quite sufficient or not sufficient

[2] Multiple responses permitted

TABLE 3.14 SUFFICIENCY OF FEEDBACK RECEIVED FROM READING TEACHER BY RATING THE ASSISTANCE GIVEN BY RESOURCE TEACHERS (Percentage Distribution)*

Sufficiency of Feedback	Percent Responding				
	Excellent	Good	Fair	Poor	Row Total
Quite Sufficient	46.2	53.8	--	--	13.7
Sufficient	15.9	75.0	9.1	--	46.3
Not Quite Sufficient	9.5	57.1	28.6	4.8	22.1
Not Sufficient	11.8	29.4	47.1	11.8	17.9
Column Totals	17.9	60.0	18.9	3.2	100.0

$p < .001$

(N = 95)

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* Totals are based upon rows

SUPPORTIVE SERVICES

In addition to primary instructional efforts, supportive services are an important part of the total effort to bring together all required resources through Title I. Major classroom support services are offered through the Parent Volunteer Corps, Educational Aides, Cultural Enrichment Program, and Pupil Personnel Services Teams.

The Parent Volunteer Corps are parents who provide support to teachers and children in helping pupils master reading and math skills. Classroom teachers were asked to indicate the classroom activities participated in by parents or members of the Parent Volunteer Corps. The following activities were reported:

Activity	Percent
Working with individual students	56.9
Working with small groups of students	31.0
Clerical and non-instructional activities	21.3
Assisting classroom teacher with the whole group in class recitation	14.7
Housekeeping	16.3

Although they also provide instructional support more directly, educational aides also provide other kinds of support services to the classroom teachers. Of teachers surveyed, 93 percent had an educational aide. They listed the following duties performed by aides:

Tasks	Percent (N = 107)
Working with small groups of students	81.0
Working with individual students	71.4
Clerical and non-instructional	57.8
Assisting teacher with whole group in classroom recitation	44.8
Housekeeping	31.8

This information, coupled with data in future sections, indicates the benefits and usefulness of education aides.

The Title I cultural enrichment program was developed to expose identified children in Title I schools to musical, dramatic and dance performances, and provide opportunities for exposure to other art forms and artists. Through the classroom teacher, the exposures are interpreted to enhance skills concepts and awareness in the areas of reading, mathematics, and self-identity. Ninety-four percent of the respondents reported their classes participated in Title I cultural activities during the 1972-1973 school year. Most of these activities occurred inside the school. Examples of activities outside the school setting were ballet and piano concerts at the Kennedy Center and movies, plays, and puppet shows.

Perceived value of Pupil Personnel Services personnel is discussed as part of an assessment of all Title I personnel, below.

Teachers were asked to indicate the usefulness of various Title I personnel in helping to meet program objectives. The distribution for all personnel is shown in Table 3.15, relative to the associated needs of each classroom teacher. Personnel are arranged in order of the percentage responding that they were "very useful"; a slightly different ordering would result if usefulness categories were combined. The table shows that educational aides are considered "very useful" by nearly 70 percent of classroom teachers. Math and then reading resource teachers receive the next highest ratings. Pupil personnel workers and aides and health aides are rated "very useful" or "moderately useful" by a very high proportion of classroom teachers.

TABLE 3.15 USEFULNESS OF TITLE I PERSONNEL IN MEETING TEACHER'S OBJECTIVES

	Usefulness (in Percent)				
Personnel	Very Useful	Moderately Useful	Not Useful	Not Applicable	Total No. Responding
Educational Aide	69.8	25.5	0.9	3.8	106
Mathematics Resource Teacher	61.6	33.3	3.0	2.0	99
Reading Resource Teacher	52.0	37.0	9.0	2.0	100
Pupil Personnel Worker & Aide	51.[illegible]	45.2	2.2	1.1	93
Health Aide	46.1	38.2	9.0	6.7	89
Title I Staff	43.9	45.1	11.0	0.0	82
Instructional Coordinator	33.8	20.3	20.3	25.7	74
Speech Therapist	29.4	31.8	30.6	8.2	85
Special Education	27.7	27.7	15.7	28.9	83
Clinical Psychologist	21.5	31.6	27.8	19.0	79

The usefulness of reading resource teachers (RRT) in meeting the objectives of classroom teachers was related to the coordination of RRT's instruction with the instruction given by the regular classroom teacher. As mentioned before, one-third thought coordination did not exist between resource and classroom teachers; of these teachers, 71 percent indicated reading teachers were useful. However, of the 67 percent believing coordination did exist, more than 98 percent thought reading resource teachers were helpful in achieving the education objectives of the regular teacher.

A check on the consistency of response among classroom teachers was accomplished by examining the relationship between a rating of the assistance received from resource teachers and a rating of the usefulness of Title I personnel (focusing on math and reading resource teachers). Results indicated that respondents who rated resource teacher assistance highly also reported that resource teachers were very useful or useful in obtaining education objectives. Both cross tabulations were statistically significant. ($p < .003$).

Respondents were asked to relate problems encountered during their tenure as Title I classroom teachers, including experiences both in and out of the classroom. Frequently encountered problems and their relative occurrence are identified in Table 3.16.[3] Major problems were concerned with the development of an instruction program -- the assessment of

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[3] The degree of frequency was not requested, as in the resource teacher questionnaires.

TABLE 3.16 FREQUENTLY ENCOUNTERED PROBLEMS AS A TITLE I CLASSROOM TEACHER

Problem	Percent Responding
Lack of time to develop program adequately	47.8
Difficulty in obtaining appropriate materials	47.8
Not enough Special Education	45.5
Not meeting needs of identified pupils	36.3
Late student identification	29.5
Student behavior	27.7
Not receiving adequate guidance from Title I staff	23.9
Problems with criteria for identified students	21.2
In-service workshops	21.2
Delivery of Psychological services	21.2
Poor training of resource teachers	15.2
Overlapping authority or lack of definition	14.2
Problems in Communications with resource teachers	13.3
Problems in Communications with other staff members	9.7

(N = 113)

relevant material resources and the time required to develop and implement various learning techniques. Lack of adequate special education was mentioned by 46 percent of the sample, although few references to this area were elicited elsewhere in the questionnaire data. Similar responses were elicited when the teachers were asked to list things liked least about the Title I program.

Apparent inconsistencies do exist in the responses of classroom teachers. In earlier discussion, it was pointed out that classroom teachers usually made the decision concerning which materials of the Competitive Reading Partnership to use in their classes. This is assumed to be an indicator of their participation in the planning of the Title I program. However, when asked directly the amount of input in the planning of the Title I program for their school, one-half of the teachers stated they had no input. Table 3.17 displays the relationship between this planning function and satisfaction as a Title I teacher. A statistical test for this relationship shows that the two variables are independent, i.e., teachers are consistent in their denial of planning input to the Title I program, regardless of the degree of satisfaction as a Title I classroom teacher. In fact, less than 32 percent of respondents said they had much input to the program. Teachers seemed to be critical of the overall contribution of Title I and their allowable input to the program, but satisfaction as a classroom teacher was unanimous. See Table 3.18.

TABLE 3.17 TEACHER INPUT TO PLANNING OF TITLE I PROGRAM BY SATISFACTION AS A TITLE I CLASSROOM TEACHER (Percentages)

	Title I Planning Opportunity				Total	
Satisfaction	Very	Some	Little	None	Percent	Number
Very Satisfied	12.2	24.4	17.1	46.3	100.0	41
Fairly Satisfied	3.8	24.5	18.9	52.8	100.0	53
Dissatisfied	--	20.0	20.0	60.0	100.0	5
Totals	7.1	24.2	18.2	50.5	100.0	99

$p < .98$

TABLE 3.16 EDUCATIONAL CONTRIBUTION OF TITLE I PROGRAM BY SATISFACTION AS A CLASSROOM TEACHER (Percentages)

	Satisfaction					
Contribution	Very Satisfied	Fairly Satisfied	Not Very Satisfied	Not Satisfied	Total No.	Total Percent
Excellent	23.8	1.9	---	---	11	10.9
Good	71.4	61.1	25.0	---	64	63.4
Fair	4.8	33.2	50.0	100.0	23	22.8
Poor	---	1.9	25.0	---	2	2.0
No Contribution	---	1.9	---	---	1	0.9
Total	100.0	100.0	100.0	100.0	101	100.0

$p < .001$

Table 3.19 provides a different insight into this planning function of teachers: Title I teaching experience is cross-tabulated by classroom teacher input to the planning of Title I programs. Examination of this table verifies the fact that length of teaching is positively correlated (r = .39) with the degree of planning input. Those having taught more than four years relate a far greater degree of planning contribution than teachers with less than three years of Title I teaching experience.

CONCLUSIONS

A summary of major findings in the analysis of the classroom teacher data is found later in this evaluation. However, certain inferences are presented here.

Regardless of the apparent breadth and scope of the staff development program, far too many respondents are dissatisfied with it. Workshops seem to be poorly organized and presentation boring and repetitious. Also, too few training sessions are held. The consensus is that the program is helpful but simply does not fulfill enough needs.

Materials provided through the Competitive Reading Partnership are valuable assets to the teaching of reading and math skills. These materials are considered at least as effective as presentations utilizing the basal reader. Too many teachers were not provided sufficient materials to individualize their teaching of math and reading using a diagnostic/prescriptive approach.

Initiation of more effective communications between classroom and resource teachers is necessary, as 39 percent of classroom teachers reported insufficient feedback received. The primary reason for lack of time on the part of resource teachers.

TABLE 3.19 TEACHER INPUT TO PLANNING OF TITLE I PROGRAM BY TOTAL YEARS TAUGHT IN TITLE I SCHOOL (Percent Responding)

Title I Planning Opportunity

Experience	Very Much	Some	Little	None	Total	
					Percent	Number
1 - 2	3.9	20.6	16.5	59.0	100.0	73
3 - 4	15.4	38.4	15.4	30.8	100.0	13
> 4*	22.3	44.4	11.1	22.2	100.0	9

(N = 95)

* Categories 5 - 6 and 7 - 8 were combined due to lack of cell observations.

Certain problems affecting respondents's opinion of the Title I program were: insufficient time to develop program adequately; lack of appropriate materials; insufficient input to the planning of the program in each school.

2. Resource Teacher Self-Evaluation

The reading resource teacher and the math resource teacher serve as the major instructional resources in reading and mathematics to both classroom teachers and identified Title I pupils. A primary task is to provide remedial or supplemental instruction for identified students, as a supplement instruction in the regular classroom setting. These criteria are:

1. Basic functions of a resource teacher.
2. Effectiveness of in-service education provided by the resource teacher.
3. Educational improvement of identified Title I pupils aided by the resource teacher.
4. Identification of publisher's materials used in reading and math centers (including Competive Reading Partnership materials).
5. Receipt of in-service training.
6. Usefulness of in-service training activities.
7. Adequacy of in-service training.
8. Overall contribution of Title I to education of identified students.

The remaining variables were cross-tabulated and correlated with these criteria to identify meaningful relationships. The following sections present evaluation findings and analysis for reading and math resource teachers.

1. Background information - age, education level, teaching experience, and grade levels presently taught.

2. Staff development activites - kinds and effectiveness of education provided classroom teachers and in-service training received.

3. Functions and tasks - basic functions of a resource teacher and services provided to classroom teachers.

4. Instructional activities - student organization for instruction purposes and a discussion of the reading and math program.

5. Supportive services - personnel helpful in the completion of instructional tasks.

6. Title I accomplishments and problems - frequently encountered problem areas; satisfaction as a Title I resource teacher; overall contribution of Title I to the education of identified students.

7. Conclusions.

BACKGROUND INFORMATION

Forty-eight reading resource teachers and fourty-four mathematics resource teachers completed questionnaires. Most resource teachers were female: 93.8 percent of reading and 97.7 percent of mathematics resource teachers.

The age distribution for reading and math resource teachers is presented below:

Age Category	Percent Distribution for Resource Teachers Reading	Math
21	6.3	4.5
21-25	20.8	34.1
26-30	16.7	22.7
31-35	22.9	13.6
36-40	12.5	4.5
41-45	6.3	15.9
45	14.6	4.5
	(N=48)	(N-44)

Twenty-seven (57.4 percent) of 47 reading resource teachers (RRT) had Master's degrees, the remaining 42.6 percent having Bachelor's degrees; for math teachers, only 20.9 percent had Master's degrees.

Resource teachers were asked to indicate the grade levels of identified students presently being taught by them. The percentage distribution of grade levels for math and reading teachers is shown below:

Grade Level	Reading Teacher	Math Teacher
K-3	88.1	85.0
1-3	7.1	10.0
K-2	2.4	2.5
3&4	2.4	2.5
	100.0	100.0
	(N=42)	(N=40)

As shown, most reading and math resource teachers are responsible for supplemental instruction to all Title I identified students through grade three.

Teachers recorded the total number of years they had been classroom teachers and the length of time spent as Title I resource teachers. Their responses are shown in Table 3.20. The average length of service as a classroom teacher is 8.6 years for reading teachers and 9.1 years for math teachers. As Title I resource teachers, both groups had taught an average of 1.2 years; none had taught longer than three years.

TABLE 3.20 TEACHING EXPERIENCE OF READING AND MATH RESOURCE TEACHERS

Experience as Classroom Teacher (Years)	Reading Teacher (N=34)	Math Teacher (N=24)
1 - 5	35.3	16.7
6 - 10	29.4	50.0
11 - 15	23.5	25.0
15	11.8	8.3
	100.0	100.0

Experience as Title I Resource Teacher (Years)	Reading Teacher (N=45)	Math Teacher (N=43)
1	84.4	76.7
2	8.9	23.3
3	6.7	--

STAFF DEVELOPMENT ACTIVITIES

Several questionnaire items inquire into in-service training provided or received by reading and math resource teachers. One of their teaching functions is to relay special instructional skills and techniques to the regular classroom teacher.[4] Resource teachers act as catalysts for change, bringing about changes in classroom teachers, in instruction, and in the ways teachers perceive learners. In order to provide training and assistance to regular classroom teachers, these resource teachers must avail themselves of any and all staff training activities offered.

Those resource teachers who provided in-service education to classroom teachers were asked to rate their effectiveness as instructors. Few thought they were ineffective as providers of training, as shown by the following percentage distributions:

Effectiveness of Training Provided	Reading Teacher (N=38)	Math Teacher (N=28)
Very Effective	18.5	21.4
Effective	76.3	71.4
Not Very Effective	2.6	7.2
Not Effective	2.6	--
	100.0	100.0

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[4] A measurement of the effectiveness of resource teachers as viewed by classroom teachers is found in the previous section.

Effectiveness of training provided is highly related to the math teacher's rating of the overall contribution of Title I to the education of identified pupils (γ = .58); the association of these variables for reading teachers is nearly as high (γ = .53).

Resource teachers providing in-service education to classroom teachers also indicated the amount (in days) of time devoted to teaching activities. The number of teachers responding and the average number of days (half and full) of training provided are shown below:

Training Provided	Reading		Math	
	Days	No. of Teachers	Days	No. of Teachers
Half Days	6.3	19	5.6	14
Full Days	4.9	7	10.0	1

A greater number of reading teachers indicated the amount of training provided; a greater percentage of reading resource teachers also feel providing training to classroom teachers to be a basic function of resource teachers.

Resource teachers are given training with the intent of providing learning experiences which will raise the academic levels of identified Title I children in reading and math skills. They receive on-going instruction in the utilization of old and new materials; resource teachers also receive continuous leadership and management skills training which should enable them to work more effectively with Title I staff and children.

More than 96 percent of all resource teachers had some type of in-service training during the 1972-1973 school year. Specific training activities and the degree to which each activity was of benefit are found in Table 3.21. For both reading and math teachers responding, on-the-job training was the greatest help, followed by participation in workshops and seminars. Almost all respondents had benefited from workshops and seminars, while fewer resource teachers had received education in other areas.

In-Service training areas by hours of training in each area are presented in Table 3.22. Attention should be paid the number responding and the average hours of training. In most instances, reading teachers are given more hours of training, and greater numbers participate in these sessions. The differences are noteworthy in the areas, Plan of Operation and education methodology. Resource teachers have received more than twice the hours training in education methodology provided classroom teachers (see previous section).

Resource teachers should be excellent judges of the content and quality of the in-service training they received; their responses to this question are displayed through relationships with other questionnaire items. Table 3.23 presents ratings of staff development activities by in-service training areas for reading and math resource teachers.[5] Analysis of this relationship for reading teachers indicated that the two variables are not independent for the areas on-the-job training ($\gamma = .54$) and participation in workshops and seminars ($\gamma = .58$). The third training area is independent of the manner in which respondents rated in-service training, $x^2 = 3.86$, 4 df.

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[5] For each training area the percentage totals for columns give the overall response to the rating of in-service training. These totals across training areas differ because of variation in sample size. Accurate frequencies are given at the botton of the table.

TABLE 3.21 STAFF DEVELOPMENT ACTIVITIES BY DEGREE OF USEFULNESS FOR MATH AND READING TEACHERS
(Percentage Distribution)

Training Activity by Resource Teacher	Little Help	Some Help	Great Help	Total Number
On the job training				
Math Teacher	8.3	25.0	66.7	12
Reading Teacher	--	31.8	68.2	22
Workshops, conferences, seminars				
Math Teacher	4.8	35.7	59.5	42
Reading Teacher	4.4	35.6	60.0	45
Discussions on methods of dealing with specific problems				
Math Teacher	11.5	53.8	34.6	26
Reading Teacher	16.7	44.4	38.9	36

TABLE 3.22 IN-SERVICE TRAINING AREAS BY HOURS OF TRAINING (Percentage Distribution)

Training Area	Hours of Training* 1-5 Reading	1-5 Math	6-10 Reading	6-10 Math	11-15 Reading	11-15 Math	15 Reading	15 Math	Total Number Reading	Total Number Math	Average Hours Reading	Average Hours Math
Plan of Operation	45	53	28	29	10	12	17	6	29	17	10.0	6.6
Federal Title 1 Guidelines	76	88	14	12	10	--	--	-	21	8	4.5	3.1
Self-analysis of strengths and weaknesses	75	71	25	29	--	--	--	-	16	7	3.8	3.3
Relationship between race, social class, and poverty	50	--	50	100	--	--	--	-	2	1	6.0	10.0
Effects of poverty on socialization & learning	67	50	33	50	--	--	--	-	3	2	3.5	6.0
Strength of the child of poverty	50	67	50	33	--	--	--	-	2	3	6.0	2.3
Povert cycle intervention stra egies	50	--	50	--	--	--	--	-	2	--	6.0	--
Education methodology	26	22	30	34	9	27	35	22	23	9	19.8	16.3

* All cells are row percentages

TABLE 3.23 RATING OF STAFF DEVELOPMENT ACTIVITIES BY IN-SERVICE TRAINING AREAS (Percentage Distribution)

Training Area		In-Service Training Rating									
		Reading Teachers					Math Teachers				
		Very Adequate	Adequate	Inadequate	Total Percent	Total No.	Very Adequate	Adequate	Inadequate	Total Percent	Total No.
On-the-Job Training	Great Help	66.7	33.3	--	100.0	15	85.7	14.3	--	100.0	7
	Some Help	14.3	57.1	28.6	100.0	7	--	100.0	--	100.0	3
	Little Help	--	--	--	--	--	--	--	100.0	100.0	1
	Total	50.0	40.9	9.1	100.0	22	54.5	36.4	9.1	100.0	11
Participation in workshops, seminars	Great Help	55.6	40.7	3.7	100.0	27	39.1	60.9	--	100.0	23
	Some Help	--	75.0	25.0	100.0	16	13.3	73.4	13.3	100.0	15
	Little Help	--	50.0	50.0	100.0	2	--	50.0	50.0	100.0	2
	Total	33.3	53.3	13.3	99.0	45	27.5	65.0	7.5	100.0	40
Discussions on methods of dealing with specific problems	Great Help	50.0	42.9	7.1	100.0	14	62.5	25.0	12.5	100.0	8
	Some Help	31.2	56.3	12.5	100.0	16	21.4	78.6	--	100.0	14
	Little Help	16.7	50.0	33.3	100.0	6	66.7	--	33.3	100.0	3
	Total	36.1	50.0	13.9	100.0	36	40.0	52.0	8.0	100.0	25
Overall Total		34.0	53.3	12.7	100.0	46	49.3	43.4	7.3	100.0	41

identical results are noted for math teachers for the association between on-the-job training and in-service training rating, $\tau = .36$ ($p > .001$); workshop participation and training rating, $\tau = .40$ ($p > .001$). Again, no relationship existed with the third training area. Analysis of this table points out two things; most teachers feel training in any area to be beneficial, and few rate their staff development program as inadequate. Important differences occur in participation rates across training areas, with on-the-job training showing the lowest participation rates.

Rating of in-service training also was tabulated against a rating of the overall contribution of Title I to the education of identified students. Nearly 98 percent of both reading and math resource teachers said they were satisfied with their work as a resource teacher.[6] Only the relationship for math teachers was significant ($X^2 = 15.13$, 4 df, $p = .004$; also Kendall's tau = .45 ($p = .001$). For all resource teachers, it should be noted that no one rated program contribution as poor and few rated it as only fair. And as observed previously, few respondents find their training inadequate. As indicated by the correlation coefficient for math teachers, the more adequate the training, the higher the rating of Title I contribution to the education of disadvantaged children.

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[6] Table 3.24 shows the relationship between Title I program contribution and the rating of in-service training of resource teachers.

TABLE 3.24 RATING OF STAFF DEVELOPMENT ACTIVITIES BY RATING OVERALL CONTRIBUTION OF TITLE I PROGRAM (Percentage Distribution)

	Title I Contribution							
	Reading Teacher				Math Teacher			
In-Service Training	Excellent	Good	Fair	Total	Excellent	Good	Fair	Total
Very Adequate	70.0	30.0	—	34.8	63.6	16.7	16.7	29.3
Adequate	20.0	60.0	83.3	54.3	36.4	79.2	50.0	63.4
Not Very Adequate	10.0	6.7	16.7	8.7	—	4.1	33.3	7.3
Not Adequate	—	3.3	—	2.2	—	—	—	—
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	10	30	6	41	14	24	6	41

P. < .20

FUNCTIONS AND TASKS

Resource teachers serve as the major instructional support resource in reading and math to both teachers and identified Title I pupils. They must provide a variety of supportive services aimed at raising the reading and math levels of these students.

Respondents were asked to indicate the basic functions of a resource teacher and the specific services provided to classroom teachers. Table 3.25 shows these response distributions for both groups.[7] Nearly all teachers agreed that providing supplemental instruction to students was a primary function; however, they did differ in their opinions about other functions. For each function listed, reading teachers far more often than math teachers considered the function to be basic. Slightly more than one-third of math teachers thought they were to provide inservice education to classroom teachers; more than 58 percent of reading teachers considered this a basic function.

Variations in response were also noted in the distributions of services provided to classroom teachers. In most instances, more reading teachers indicated they provided each kind of service than did math instructors. In the case of suggestions on classroom management, the difference is significant (50 percent versus 9 percent).

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[7] Respondents could check as many or as few functions and services as they felt relevant.

TABLE 3.25 BASIC FUNCTIONS OF A RESOURCE TEACHER AND SERVICES PROVIDED TO CLASSROOM TEACHERS

(Percentage Distribution)*

Basic Functions	Reading Teacher (N=48)	Math Teacher (N=44)
Provide students with supplemental instruction	95.8	100.0
Resource to classroom teacher	93.8	77.3
Provide in-service education to classroom teachers	58.3	38.6
Provide in-service education to parents	64.6	47.7
Service Provided	Reading Teacher (N=48)	Math Teacher (N=44)
Demonstration of teaching techniques	58.3	54.5
Suggestions on classroom management	50.0	9.1
Identification of student strengths and weaknesses	91.7	79.5
Location of instructional materials	89.6	63.6
Strategies to remediate student deficiencies	81.3	72.7
Strategies to capitalize on student strengths	45.8	47.7

* Percent of all respondents checking each category

Table 3.26 shows the person(s) who determined how resource teachers should spend their time on basic functions. More than 80 percent of all teachers questioned indicated that they themselves made the decision, either individually or in cooperation with others. Reading teachers seemed more often to make such decisions in cooperation with others; whether such assistance was requested by them or not cannot be determined from the data.

INSTRUCTIONAL ACTIVITIES

Resource teachers do not provide remedial instruction unless requested to do so by regular classroom teachers. When needed, supplemental instruction is provided individually or in small groups. A variety of concrete materials are available to help students discover and reinforce mathematical concepts and reading skills.

Resource teachers were asked how many students they had given instruction during the school year.

Those teachers providing valid responses reported an average of 72 reading and 87 math students were worked with during the 1972-73 school year. Of these identified students, 67 percent of reading and 68 percent of math pupils experienced significant improvement. Reading teachers worked with an average of 71 students per week, with a range of 11 to 225 students. (This measurement was checked and determined to be valid). Math resource teacher information was not provided. It should be recalled that classroom teachers estimated an average of 18 reading and 18 math students per class were identified for Title I remedial instructors, D. C. Heath provided 69 percent of all instructional materials. It is significant

TABLE 3.26 DECISIONMAKER AS TO HOW TIME IS ALLOCATED AMONG BASIC FUNCTIONS OF RESOURCE TEACHERS

(Percentage Distribution)*

Decisionmaker	Reading Teacher (N=48)	Math Teacher (N=44)
Resource Teacher	81.3	81.8
Faculty	50.0	18.2
Reading Task Force	43.8	4.5
D. C. Public Schools:		
Reading Department	12.5	--
Math Department	--	9.1
Other	12.5	22.7

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* Percentage distributions do not total to 100 percent due to multiple responses.

that more than 19 percent of math teachers mentioned that no publisher's materials were used (see Table 3.27); only two percent of reading teachers answered in a similar manner. Classroom teachers previously had indicated McGraw-Hill to be the largest supplier of CRP materials. The primary decision-maker for use of these CRP materials by resource teachers is presented in Table 3.28.[8] Classroom teachers, more often than not, made the decision as to which reading materials should be used; resource teachers themselves were the second most frequently chosen category. The rank ordering of categories resembles that for classroom teachers, except that resource teachers were not given as a separate alternative. A very different distribution is observed for math resource teachers: the Title I staff was reported to participate in the decision process by 50 percent of respondents; resource teachers were cited 41 percent of the time.

SUPPORTIVE SERVICES

Just as classroom teachers benefit from and require the services of resource teachers and support staff, so must resource teachers avail themselves of similar assistance. Skilled teacher aides and capable, involved parents are most important to the success of the efforts of these teachers, as they are constantly working with the most needy, economically disadvantaged students.

Resource teachers were asked to indicate what people were helpful in the completion of their instructional tasks and the frequency

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[8] The response distributions are complicated by the fact that multiple responses were permitted: it was impossible to determine the primary decision-maker, according to each resource teacher.

TABLE 3.27 SOURCE OF MATERIALS FOR REMEDIAL INSTRUCTION IN READING AND MATH CENTERS

(Percentage Distribution)

Supplier	Reading Teacher	Math Teacher
McGraw-Hill	31.3	--
Random House	--	--
D. C. Heath	18.8	69.0
Combination of Above	43.8	7.1
Other Supplier	4.2	4.8
No materials	2.1	19.1
	100.0 (N=48)	100.0 (N=42)

TABLE 3.28 DECISIONMAKER AS TO USE OF COMPETITIVE READING PARTNERSHIP MATERIALS

(Percentage Distribution)*

Decisionmaker	Reading Teacher (N=48)	Math Teacher (N=44)
Classroom Teacher	66.7	31.8
Resource Teacher	41.7	40.9
Principal	37.5	27.3
Title I Staff	22.9	50.0
Reading Task Force	16.7	4.5
D.C. Public Schools:		
Math Department	--	2.3
Reading Department	4.2	--
Other	2.1	9.1

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* Columns do not total due to multiple resources

and length of assistance provided; responses are provided in Table 3.29.[9] Nearly 60 percent of reading and 73 percent of math teachers said no supportive services were provided. Of support personnel mentioned, parents as members of the Parent Volunteer Corps provided the most aid to reading resource teachers; educational aides were a distant second in terms of frequency of utilization. Parents and other support personnel provided their assistance on a daily basis for 38 percent of reading and 50 percent of math resource teachers responding. Weekly assistance was reported frequently, especially for math teachers. The average member of hours of support daily was 4.3 hours for reading and 2.8 hours for math resource teachers.

ACCOMPLISHMENTS AND PROBLEMS

Resource teachers, unlike classroom teachers, were requested to indicate the degree of frequency in occurrence of various problems that were encountered; Table 3.30 lists these problems. Problems are ordered by the percentage of responses to the "frequently" alternative for reading teachers. In addition, the number of responses to each problem area is provided.

The most frequently encountered problems for reading teachers are (in decreasing order of frequency): meeting the needs of identified children; lack of special education; obtaining appropriate materials; lack of time to develop program adequately. For math instructors the ordering and frequency of responses differ slightly; the most common

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[9] Multiple responses were permitted for the listing of supported personnel.

TABLE 3.29 SUPPORTIVE SERVICE PERSONNEL AND FREQUENCY OF ASSISTANCE

(Percentage Distribution)

Support Personnel	Reading Teacher (N=47)	Math Teacher (N=44)
Parents	34.0	15.9
Educational Aides	17.0	15.9
Other Personnel	8.5	11.4
No Support	59.6	72.7

Basis of Assistance*	Reading Teacher (N=13)	Math Teacher (N=12)
Daily	38.4	50.0
Weekly	30.8	16.7
Other Basis	30.8	33.3
	100.0	100.0
Average Hours of Daily Assistance	4.3	2.75

* Columns do not total 100 percent due to multiple responses

TABLE 3.30 FREQUENTLY ENCOUNTERED PROBLEMS AS A RESOURCE TEACHER

(Percentage Distribution)

	Frequency of Problems									
	Reading Teacher					Math Teacher				
Problem Area	Frequently	Sometimes	Seldom	Never	Total No.	Frequently	Sometimes	Seldom	Never	Total No.
Meeting needs of identified students	32.5	37.5	25.0	5.0	40	43.6	33.3	17.9	5.2	39
Not enough special education	31.7	34.1	12.2	22.0	41	29.7	27.0	24.3	18.9	37
Obtaining appropriate materials	28.9	28.9	26.7	15.5	45	47.6	23.8	9.0	9.5	42
Lack of time to develop program adequately	15.9	38.6	20.5	25.0	44	9.8	46.3	24.4	19.5	41
Receiving adequate guidance from Title I staff	16.3	37.2	18.6	27.9	43	18.9	27.0	37.8	8.1	37
Inadequate delivery of psych. services	19.4	30.6	16.7	33.3	36	15.2	24.2	30.3	30.3	33
Late student identification	15.6	26.7	24.4	33.3	45	12.2	46.3	17.1	24.4	41
Communications problems with teachers	8.9	31.1	31.1	28.9	45	2.3	32.6	32.6	32.6	43
Student behavior problems	4.7	32.6	30.2	32.5	43	4.7	44.2	39.5	11.6	43
Poor in-service training	2.4	34.1	19.5	44.0	41	5.1	10.3	46.2	38.5	39
Communications problems with staff members	9.1	18.2	38.6	34.1	44	4.7	16.3	46.5	32.6	43
Criteria for identified students	11.4	13.6	22.7	52.3	44	7.5	27.5	30.0	35.0	40

problems were: obtaining appropriate materials; meeting needs of identified students; lack of special education. Although only 13 percent of reading resource teachers rated their in-service training as inadequate, more than 34 percent mentioned poor training as a problem area which occurred "sometimes"; an additional 2.4 percent reported inadequate training to be a frequent problem.

As a measure of the effectiveness of the Title I program, resource teachers were asked to rate the overall contribution of Title I to the education of identified students. Also, they indicated their degree of satisfaction working as Title I resource teachers. Tables 3.31 and 3.32 display for reading and math resource teachers, respectively, the relationship between the educational contribution of Title I and satisfaction as a resource teacher. Marginal percentages are the simple response distributions for each of the two variables in question. Very few respondents were dissatisfied with their roles as resource teachers; about three-quarters of reading and 69 percent of math teachers were very satisfied. A slightly different picture is evident from the distributions for program contribution: although nearly 90 percent of all respondents felt the Title I contribution to be "good to excellent," most teachers rated the program as "good." However, no one rated the program as poor or making no contribition. For math teachers, there is a significant relationship between the two variables ($X^2 = 16.74$, 4 df, $p = .002$); the strength of this association is measured by its correlation, $\tau = .53$ ($p = .001$). A weaker relationship is found for reading teachers, $X^2 = 11.39$, 4 df, $p = .05$; also, only a

TABLE 3.31 EDUCATION CONTRIBUTION OF TITLE I PROGRAM BY SATISFACTION AS A READING TEACHER

(Percentage Distribution)

	Satisfaction				
Program Contribution	Very Satisfied	Fairly Satisfied	Dissatisfied	No.	Total Row Percent
Excellent	28.6	9.1	--	11	23.4
Good	65.7	63.6	--	30	63.8
Fair	5.7	27.3	100.0	6	12.8
Column Percent	74.5	23.4	2.1	47	100.0

$P < .05$

TABLE 3.32 EDUCATION CONTRIBUTION OF TITLE I PROGRAM BY SATISFACTION AS A MATH TEACHER

(Percentage Distribution)

	Satisfaction				
Contribution	Very Satisfied	Fairly Satisfied	Dissatisfied	NO.	Total Row Percent
Excellent	41.4	--	--	12	28.6
Good	55.2	66.7	--	24	57.1
Fair	3.4	33.3	100.0	6	14.3
Column Percent	69.0	28.6	2.4	42	100.0

P = .002

moderate correlation is noted, $\gamma = .34$. Such association simply means that the more satisfaction derived from work as a Title I resource teacher, the more favorable the rating of the overall contribution of the Title I program.

CONCLUSIONS

The most important observations of the staff development activities of resource teachers are based upon comparisons with classroom teachers. Very few resource teachers find their training program inadequate. This may be a function of differences in number and type of services provided. Many more resource teachers took part in Staff Development activities and for longer periods of instruction than did classroom teachers.

Resource teachers were in agreement with classroom teachers that their function was to provide students with supplemental instruction. Neither math nor reading teachers were overwhelmingly committed to providing training to classroom teachers, although nearly 60 percent of reading teachers (as compared with less than 40 percent of math teachers) considered such training a basic resource teacher function.

No question specifically addressed the effectiveness of CRP materials. Math teachers were primarily reliant upon materials supplied by D. C. Heath; McGraw-Hill was the provider of teaching materials for most reading teachers.

Very few resource teachers were dissatisfied with their roles, but they did point out problems that hampered their efficiency. Three problems were frequently cited: difficulties in meeting the needs of identified children; lack of special education; problems in obtaining appropriate learning materials.

3. Educational Aide Self Evaluation

Skilled teacher aides are a necessary ingredient for the success of a pupil instructional program such as provided through Title I. They prove especially useful in the instructional reading program and associated tasks; their services are in great demand from classroom and resource teachers.

The structure of the educational aide questionnaire was quite different from the three previously discussed. Important information was gathered through the use of self-report and self-description inventories; these data sets comprise the major part of the survey data. Analysis of these data follow this outline.

1. Background information - age and sex distribution
2. Evaluation criteria - adequacy of preparation to assist in math and reading teaching; satisfaction as an education aide.
3. Self-report inventories - part of the questionnaire data requests opinions of aides concerning their effectiveness in the Title I program: working relations and communications; work effort; work habits and responsibilities.
4. Title I program evaluation - aides rated the effectiveness and worth of the Title I project in the areas; staff development activities; duties and interaction with the classroom teacher; project worth and EA experience.

BACKGROUND INFORMATION

Completed questionnaires from 102 educational aides provided the data for this evaluation. Female aides comprised 91.4 percent of the respondent population.

Aides were asked to indicate their current age; the breakdown by age groups follows:

Group	Percent (N=93)
<21	2.2
21-25	8.6
26-30	8.6
31-35	29.0
36-40	22.6
>40	29.0

EVALUATION CRITERIA

In addition to an internal evaluation, items in the self-report and self-description inventories were analyzed through their relationship with other variables in the questionnaire. Three variables, in addition to the age distribution, were established as evaluation criteria; they are shown in Table 3.33, along with their response distribution and questionnaire item numbers.

Educational aides were consistent in their appraisal of the adequacy of training and preparation for assistance to teachers and in the degree of satisfaction as educational aides. In each instance, well over 90 percent of aides responded in the affirmative. Such findings, though important univariately, make cross-tabulations difficult. For example, only two aides indicated dissatisfaction with their roles as education aides. Therefore cross-tabulations can only analyze variations in response for those answering, "very satisfied" or "fairly satisfied." These comments apply, similarly, to the other questions in the table. Only the distribution of ages allows a sufficient range of responses to warrant truly useful cross-tabulation.

TABLE 3.33 EVALUATION CRITERIA

73. Adequacy of preparation to assist in the teaching of reading

	Percent (N=95)
Very Adequate	31.6
Adequate	65.3
Inadequate	1.1
Very Inadequate	2.0
	100.0

74. Adequacy of preparation to assist in the teaching of math

	Percent (N=99)
Very Adequate	25.3
Adequate	66.7
Inadequate	4.0
Very Inadequate	4.0
	100.0

75. Satisfaction as an educational aide

	Percent (N=100)
Very Satisfying	86.0
Fairly Satisfying	12.0
Not Very Satisfying	0.0
Not Satisfying	2.0
	100.0

SELF REPORT/SELF DESCRIPTION INVENTORIES

(ANALYTIC METHODOLOGY)

The first 72 items on the questionnaire were purported to be measures of educational aide self-assessment and program evaluation. This direct approach to the measurement of attitudes is limited to what the individual knows about his attitudes and what he is willing to relate. Sufficient frankness and honesty of respondents were assumed in this analysis. An examination of the two Likert, or summative, scales thought to measure self-assessment and program evaluation followed this outline:

1. Factor-analysis - used to eliminate those scale items that do not exhibit a high relationship with other items. This ensured the unidimensionality of each scale.

2. Item analysis - used as an adjunct to factor analysis. Each scale item was correlated with the total scale score (less the score for the item in question). An analysis of these correlations coefficients determined which items have unusually low correlations with the scale in question and should be eliminated from further analysis.

3. Content analysis - analysis of response distributions for each questionnaire item within the two scales. This involved, for each item, computation of central tendency, measure of dispersion, and percentage distribution.

SELF-ASSESSMENT

Questionnaire items 1-40 were designed to measure the effectiveness of educational aides in the Title I program--such measurement to be supplied by aides themselves. Examination of these items, and ones purported to measure Program Evaluation, showed that several did not relate to their hypothetical criteria. That is, some items in self-assessment really belonged in program evaluation, and vice versa.

The undimensionality of the self-assessment scale was examined through factor analysis. It was hypothesized that this group of items represented a single, general dimension of attitudes. Such proved not to be the case. Analysis of the principal components factor matrix showed that this seemingly unified attitude complex, in fact, broke up into several independent factors. This was verified by examination of the rotated factor matrix. Although the prevailing factor structure was too weak on which to base any extensive conclusions, item clusters were formed and analyzed against other variables in the questionnaire. Each cluster was assigned a title, not necessarily representative of all items within that pool. Based upon item content and correlation analysis, items 21 and 25 were removed and replaced by items 47 and 50. As will be explained in Program Assessment, item 25 was added there, while item 53 was discarded entirely. Related clusters of items were identified that can be described sufficiently to give a clear picture of aides feelings and opinions. These three content areas were: working relations and communications; work effort; work habits and responsibilities. Each will be discussed in detail.

SELF-ASSESSMENT FINDINGS

Working Relations and Communications

Interchange of information and ideas among teachers, Title I staff, and educational aides is a necessary ingredient for program success. Cordial working relations facilitate such an interaction in the communications structure.

An important result of the communications process is group locomotion: as a result of communications, teachers and staff are likely to move closer to the goals that prompted formation of this interactive structure, i.e., success of the pupil instruction program. The content of the communications process concerns instruction methods and procedures and data on student progress, deficiencies, and background.

Educational aides were requested to indicate their agreement or disagreement with a cluster of items relating to communications among Title I personnel. A list of these questionnaire items and the percentage distributions are found in Table 3.34. In addition, mean averages of item scores are provided.[10] Analysis of this table points out that respondents were in general agreement that they were effective in carrying out cooperative efforts regarding interpersonal relations and flow of communications.

It is interesting that 23 percent of the aides felt they had not obtained complete information required for the planning of their work. The question gives no clue as to where the breakdown in communications occurred; cross-tabulations proved inconclusive.

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[10] Means are computed with the knowledge that such calculations fundamentally require interval level measurement. Assumption of an imperfect interval scale is assumed with the stipulation that only rank ordering of items is tolerated.

TABLE 3.34 EDUCATIONAL AIDE SELF ASSESSMENT: WORKING RELATIONS AND COMMUNICATIONS
(Percentage Distribution)

Questionnaire Item	Rating Scale[1]					
	Strongly Agree	Mildly Agree	Agree Nor Disagree	Mildly Disagree	Strongly Disagree	Scale[2] Mean
Help fellow workers when needed	86.1	11.9	1.0	1.0	--	4.83
Establish effective working relations with teachers and principal	82.4	15.7	1.0	—	1.0	4.78
Cooperate with others to reduce troublesome factors in difficult situations	70.3	26.7	3.0	--	--	4.67
Supervisor informed on all important matters	62.4	22.8	9.0	3.0	2.0	4.41
Tactful in enlisting cooperation of reluctant in individuals	43.9	33.7	17.3	5.1	--	4.16
Informed about background of pupils assisting in reading	45.5	32.7	12.9	0	4.0	4.11
Do not obtain complete information in planning my work[3]	7.3	15.6	8.3	13.5	55.3	3.94

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[1] Responses are in percentage form

[2] Strongly positive =5; strongly negative =1

[3] Items that worded negatively are reflected in scale scoring

Work Effort

Skilled teacher aides are vital to the success of instruction and instruction-related tasks. Generally, the educational aides assist the classroom or resource teacher in any activity requiring their support; in addition, they must carry out tasks beyond the scope of the instructional requirements of teachers, e.g., assisting young children in toiletry and hygienic functions. A self-assessment was requested from educational aides regarding the quality and quantity of their work and timeliness in meeting schedules and deadlines.

Table 3.34 lists items relating to the timeliness and quality of the work effort of education aides; items are ordered by their mean scores. Although differences exist across questions in the degree of agreement (strongly or mildly agree), all except three variables show extremely high total agreement. These exceptions are:

1. Only 64 percent said they submitted accurate plans to their supervisors.
2. Over 18 percent admitted they did not work effectively with slow readers.
3. Almost 19 percent stated they were not on time in meeting deadlines.

Despite such findings, over 90 percent felt that the amount of work done was acceptable; work was planned to meet time schedules; work was organized to do a good job in the minimum amount of time; and task expectations were met.

WORK HABITS AND RESPONSIBILITIES

Although prescribed procedures are available for the completion of most instructional and non-instructional tasks, the educational aide must be able to implement, individualized methods where necessary. Formalized techniques do not work on every student; the diagnostic/prescriptive approach focuses upon each child's individuality. This section analyzes educational aides' opinions on: (1) responsibilities, (2) leadership and initiative, (3) personal traits, and (4) work habits.

Aide self-assessment of work habits is examined in Table 3.35; only one item offered any significant deviation from unanimity of agreement. Twenty-one percent stated they sometimes agreed to do something but failed to carry through. This figure is important regardless of the fact that 71 percent disagreed with this statement.

Table 3.36 takes a closer look at measurements of aide responsibilities, initiative, and leadership. Three items merit mention:

1. Nearly 30 percent felt their teaching responsibilities could be more effectively done by a classroom teacher. Another 17 percent neither agreed nor disagreed with this statement.
2. Only 56 percent were emotionally committed to their job.
3. One-quarter of respondents felt they needed more supervision, even when given directions.

The remaining items, judged by their scale mean values, were rated at least mildly positively, i.e., an average value of 4.0 is indicative of mild agreement in positively worded items.

TABLE 3.35 EA SELF ASSESSMENT: WORK HABITS (Percentage Distribution)

Questionnaire Item	Rating Scale[1]					
	Strongly Agree	Mildly Agree	Agree Nor Disagree	Mildly Disagree	Strongly Disagree	Scale Mean[2]
Can work effectively	78.4	15.5	6.2	--	--	4.72
Amount of work I do is acceptable	76.2	15.8	6.9	---	1.0	4.66
Take enough time to ensure quality work	69.6	25.5	3.9	1.0	--	4.64
I meet task expectations	64.0	28.0	7.0	1.0	--	4.55
Work organized to do good job in minimum time	63.4	28.7	4.0	1.0	3.0	4.49
Can write clearly and express myself well	55.4	34.7	7.9	2.0	1.0	4.44
Plan work to meet time schedule	56.9	33.3	5.9	1.0	2.9	4.40
Use working time to optimize accuracy of work	50.5	37.6	8.9	2.0	1.0	4.35
Do not work effectively with slow readers[3]	8.1	10.1	6.1	16.2	59.6	4.09
Submit accurate plan to supervisor	42.4	21.2	28.3	6.1	2.0	3.96
Not on time in meeting deadlines	12.9	5.9	12.9	11.9	56.4	3.93

[1] Responses are in percentage form

[2] Strongly positive=5; strongly negative=1

[3] Items that are worded negatively have been reflected in scale scoring

TABLE 3.35.2 AIDE SELF ASSESSMENT: WORK HABITS
(Percentage Distribution)

	Rating Scale[1]					
Questionnaire Items	Strongly Agree	Mildly Agree	Agree Nor Disagree	Mildly Disagree	Strongly Disagree	Scale Mean[2]
Accept constructive criticism	67.0	24.0	8.0	1.0	---	4.56
Protect the confidentiality of my data	66.7	20.2	12.1	1.0	---	4.53
At my post of duty on time	63.7	25.5	5.9	2.9	2.0	4.46
If assigned something special, I sometimes forget details on how to do it[3]	3.0	8.0	8.0	18.0	63.0	4.30
Absent Excessively[3]	10.9	3.0	4.0	11.9	70.3	4.28
Sometimes I say something and do not do it[3]	6.0	15.0	8.0	14.0	57.0	4.01

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[1] Responses are in percentage form

[2] Strongly positive=5; strongly negative=1

[3] Items that are worded negatively are reflected in scale scoring

TABLE 3.36 AIDE SELF ASSESSMENT: LEADERSHIP AND INITIATIVE
(Percentage Distribution)

Questionnaire Item	Rating Scale[1]					
	Strongly Agree	Mildly Agree	Agree Nor Disagree	Mildly Disagree	Strongly Disagree	Scale Mean[2]
If first approach to a task does not work I plan another	75.5	21.6	2.9	--	--	4.73
Show evidence of planning in carrying out duties	70.0	26.0	3.0	--	1.0	4.64
Flexible in handling unexpected situations	63.3	29.7	4.0	--	2.0	4.54
Can adjust to change in plans	67.3	24.8	4.0	1.0	3.0	4.52
Take initiative in using valid new methods	62.2	23.5	11.2	3.1	--	4.45
Can handle situations not covered in training	55.1	32.7	12.2	--	--	4.43
Assume leadership in performing certain duties	56.0	27.0	14.0	2.0	1.0	4.35
Unable to recognize differences between problems and put them in their proper relationship[3]	6.0	7.0	7.0	14.0	66.0	4.27
Not diplomatic in avoiding conflict situations[3]	4.1	7.2	15.5	13.4	59.8	4.18

TABLE 3.36.2 AIDE SELF ASSESSMENT: LEADERSHIP AND INITIATIVE
(Percentage Distribution)

	Rating Scale[1]					
Questionnaire Item	Strongly Agree	Mildly Agree	Agree Nor Disagree	Mildly Disagree	Strongly Disagree	Scale Mean[2]
Suggest new ways of solving problems compatible with situation peculiarities	38.4	44.4	14.1	3.0	--	4.18
Ability to interpret pupil to school and the community	43.0	28.0	25.8	3.2	--	4.11
Given too many responsibilities[3]	2.9	6.9	20.6	20.6	49.0	4.06
Have insights into complex problems that confront me	39.8	33.7	20.4	2.0	4.1	4.03
Even when given direction, often need more supervision[3]	9.1	15.2	9.1	17.2	9.5	3.83
Emotionally committed to this job	35.5	21.5	25.8	7.5	9.7	3.66
Teaching responsibilities given more effectively done by classroom teachers[3]	12.1	17.2	17.2	24.2	29.3	3.41

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[1] Responses are in percentage form

[2] Strongly positive=5; strongly negative=1

[3] Items that are worded negatively are reflected in scale scoring

TITLE I PROGRAM EVALUATION

The educational aide's rating of the effectiveness and worth of the Title I program was measured by questionnaire items 41-72. All of these items (41-72) did not measure what had been intended. As a result of factor analysis and item analysis, the final list of variables for program evaluation consisted of items 41-46; 48-49; 51-52; 54-72.

Three clusters of variables were identified for analysis: project worth and aide experience, interaction with classroom teacher, and staff development acitvities. Each area was analyzed univariately and against the aforementioned evaluation criteria, when applicable.

Staff Development Activities

The effectiveness of teacher aides and the quality of their work effort is partially dependent upon the in-service training provided. Aides receive continuous training in how to provide supportive services in order for the teacher to raise the academic level (math and reading) of identified children. Such activities are conducted in workshops, labs, and through in-service training; the outcome of such training should be a group of aides capable of applying acquired skills in a classroom situation.

Responses to questions pertaining to training activities for education aides are outlined in Table 3.37; an informative view to the usefulness of these activities is presented. The most important findings for each relevant variable are listed below:

1. Sixty percent of respondents felt future training for aides should be made more interesting.
2. Only 30 percent had participated in workshops on creative writing.

TABLE 3.37 PROGRAM ASSESSMENT: STAFF DEVELOPMENT ACTIVITIES
(Percentage Distribution)

Questionnaire Item	Rating Scale[1]					
	Strongly Agree	Mildly Agree	Agree Nor Disagree	Mildly Disagree	Strongly Disagree	Scale[2] Mean
Training instructors were skillful in dealing with problems that arose	57.7	19.6	18.6	2.1	2.1	4.29
Training gave honest, objective info on how to assist classroom teacher with reading tasks	53.6	22.7	20.6	2.1	1.0	4.26
Had training in what motivates children to read	43.9	27.6	21.4	5.1	2.0	4.06
Training adequate for assigned tasks	43.8	25.0	20.8	6.3	4.2	3.98
Training received dealth with real problems of pupils	42.7	19.8	28.1	4.2	5.2	3.91
Training received was not well planned[3]	4.2	12.6	24.2	12.6	46.3	3.84
Adequately trained to deal with problems that arise	41.4	26.3	13.1	13.1	6.1	3.84
Adequately trained in developing and using individualized reading materials for pupils	35.4	29.2	24.0	6.3	5.2	3.83

TABLE 3.37.2 PROGRAM ASSESSMENT: STAFF DEVELOPMENT ACTIVITIES
(Percentage Distribution)

	Rating Scale[1]					
Questionnaire Item	Strongly Agree	Mildly Agree	Agree Nor Disagree	Mildly Disagree	Strongly Disagree	Scale[2] Mean
Those who trained Aides sometimes did not know what they were talking about[3]	9.3	8.2	25.8	9.3	47.4	3.77
Some training was a waste of time[3]	12.1	10.1	23.2	7.1	47.5	3.68
Some of the training was not relevant[3]	9.3	11.3	23.7	15.5	40.2	3.66
Have not participated in the in-service training program this year[3]	21.6	8.2	16.5	7.2	46.4	3.48
If I designed Aide training, I would make it different from my training program[3]	12.8	19.1	35.1	9.6	23.4	3.12
Participated in workshops on creative writing	18.8	10.4	21.9	9.4	39.6	2.59
Aide training should be made more interesting in the future[3] ,	37.8	22.4	16.3	10.2	13.3	2.39

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[1] Responses are in percentage form

[2] Strongly positive=5; strongly negative=1

[3] Items that are worded negatively have been reflected in scoring

3. One-third would redesign the educational aide training program, if given the task. Another 35 percent were uncertain as to their responses.

4. One-fifth felt some of their training was not relevant.

5. Twenty-two percent indicated that some of their training was highly correlated (r = .58) with the previous comment.

6. Only 57 percent thought those who trained educational aides knew what they were talking about.

7. However, 63 percent expressed the opinion that training received dealt with the real problems of students. One-fifth of the sample denied receiving training to deal with problems that came up.

8. Two-thirds felt adequately trained in developing and using individualized reading materials for pupils.

9. Less than three-fifths of aides thought the training received was well planned.

10. Only 54 percent indicated they had participated in the in-service training program during the 1972-73 school year; 29.8 percent indicated they had not participated in training.

The remaining variables reflected agreement concerning the positive aspects of the staff development program for educational aides. A careful review of Table 3.37 suggests some serious weaknesses in the staff development program.

Although previous comments regarding the lack of variance in the evaluation criteria hold, an example of a relationship is shown in Table 3.38: satisfaction as an educational aide was cross-tabulated with adequacy of training in problem situations. This table shows that a greater degree of satisfaction with being an aide relates to a stronger feeling of adequacy in training to deal with problems that come up. A correlation of .39 ($p<.001$) is an index of this association. Other variables produce similar breakdowns, although categories of responses

TABLE 3.38 SATISFACTION AS AN EDUCATIONAL AIDE BY ADEQUACY OF TRAINING IN PROBLEM SITUATIONS (Percentage Distribution

	Adequacy of Training					
Satisfaction as EA	Strongly Disagree	Mildly Disagree	Agree Nor Disagree	Mildly Agree	Strongly Agree	Row Number
Very Satisfied	2.4	9.5	10.7	29.8	47.6	84
Satisfied	33.3	33.3	25.0	8.3	--	12
Dissatisfied	--	50.0	--	50.0		2
Column Number	6	13	12	26	41	98

$p < .001$

are limited due to low variance in aide responses to the question about job satisfaction.

DUTIES AND INTERACTION WITH TEACHER

Effective communications with the regular classroom teacher are necessary to the educational aide in order to further learning experiences and to reduce conflict situations. The aide is in the classroom not only to provide assistance but also to acquire skills to allow more independent action and assistance. In connection with relations with the teacher, questionnaire respondents were asked to provide opinions on communications related to task assignments.

A list of these questions with their response distributions is provided in Table 3.39. Two questions related directly to the duties of educational aides: aides were asked whether their duties were clearly defined and if procedures for aides were clear-cut. Only 62 percent thought duty procedures were clear-cut; three-quarters of aides felt duties were clearly defined.

Aides were asked if they had learned much about teaching reading from talking to the classroom teacher. Two-thirds of them agree with this statement concerning educational aide instruction. Remaining variables indicated that respondents felt they had acquired sufficient skills and training to effectively assist the classroom teacher and pupils in the teaching of math and reading. There was no clear indication where such competence was gained, i.e., whether expertise evolved from staff development activities or interaction with the classroom teacher and pupils.

TABLE 3. 39 PROGRAM ASSESSMENT: INTERACTION WITH CLASSROOM TEACHER AND DUTIES
(Percentage Distribution)

Questionnaire Item	Rating Scale[1] Strongly Agree	Mildly Agree	Agree Nor Disagree	Mildly Disagree	Strongly Disagree	Scale[2] Mean
Assist teacher in teaching and testing of reading comprehension skills	68.1	21.3	9.6	1.1	--	4.56
Can relate reading to fun activities in which pupils engage	64.2	24.2	8.4	3.2	--	4.49
Can effectively assist classroom teacher in teaching word perception skills	56.3	35.4	6.3	1.0	1.0	4.45
Teacher helpful in working out problems encountered	60.6	27.3	9.1	2.0	1.0	4.44
Now understand more clearly the problems pupils have with math	56.7	25.8	10.3	4.1	3.1	4.29
Duties were not clearly defined[3]	7.1	8.2	9.2	17.3	58.2	4.11
Did not learn much about teaching reading by talking to teacher[3]	9.5	7.4	16.3	21.1	45.3	3.85
Procedures for EA's were clear-cut	42.6	19.1	20.2	12.8	5.3	3.81

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[1] Responses are in percentage form

[2] Strongly positive=5; strongly negative=1

[3] Items that are worded negatively have been reflected in scoring

The interaction between the adequacy of preparation to assist in teaching of math and a better understanding now of what it takes to assist in teaching of math is shown in Table 3.40.

Logically, the more adequate the preparation, the better the understanding of what it takes to assist in the teaching of math. The strength of this association is indicated by a correlation coefficient of .389 ($p<.001$). Other cross-tabulations, although interesting, were not statistically significant and will not be discussed. No variable relationships with age were significant, i.e., age of EA's is independent from their responses on the attitude inventories.

PROJECT WORTH AND AIDE EXPERIENCES

The attainment of Title I goals requires a concerted effort of all program participants and coordination of all programs with stated goals of the D. C. School System. Aides were questioned concerning their Title I experiences and their opinions concerning the value of the educational aide component.

Six questionnaire items were devised to gain insights into their experiences as educational aides in the Title I program and their opinions as to the worth of the project. These six items are found in Table 3.41, ordered by their scale mean scores. Another 67 percent of the aides thought inter personal relationships developed with school staff to be the best part of their educational aide experience.

Ninety percent of respondents stated that learning to deal with pupils and their reading and math problems to be the most important experience.

TABLE 3.40 BETTER UNDERSTANDING NOW OF REQUIREMENTS TO ASSIST IN MATH TEACHING BY ADEQUACY OF PREPARATION TO ASSIST IN TEACHING OF MATH (Percentage Distribution)

Adequacy of Preparation	Understand Requirements					Total	
	Strongly Disagree	Mildly Disagree	Agree Nor Disagree	Mildly Agree	Strongly Agree	Percent	No.
Very Adequate	--	--	4.0	20.0	76.0	100.0	25
Adequate	6.3	6.3	12.5	25.0	50.0	100.0	64
Not Very Adequate	--	--	50.0	50.0	--	100.0	4
Not Adequate	66.7	--	--	33.3	--	100.0	3
Total Number	6	4	11	23	52		96

$p < .001$

TABLE 3.41 PROGRAM ASSESSMENT: PROJECT WORTH AND EA EXPERIENCE
(Percentage Distribution)

Questionnaire Item	Rating Scale[1]					
	Strongly Agree	Mildly Agree	Agree Nor Disagree	Mildly Disagree	Strongly Disagree	Scale[2] Mean
Being an Aide has taught me a lot	82.8	10.1	5.1	---	2.0	4.72
Did not enjoy working as an Aide[3]	4.0	2.0	3.0	6.0	85.0	4.66
Most important experience: learning to deal with pupils and their reading and math problems	65.6	24.0	8.3	2.1	---	4.53
Aide project gives pupils hope for the future	67.0	16.5	13.4	2.1	1.0	4.46
Title I Aide project showed good operations management it its conduct of the reading component	48.0	35.5	14.0	2.2	---	4.30
Interpersonal relations developed with school staff: best part of Aide experience	44.7	22.3	17.0	11.7	4.3	3.91

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[1] Responses are in percentage form

[2] Strongly positive=5; strongly negative=1

[3] Items that are worded negatively have been reflected in scale scoring

Technically, these two questions are dependent; that is, a respondent should not strongly agree to both items. However, no statistical manipulations can remedy this problem. The important aspects of other questions are listed:

1. Eighty-four percent felt the EA project gives people hope for the future.
2. The same percentage of respondents stated that the project showed good operations management in its conduct of the reading component.
3. Over 90 percent thought being an aide had taught them a lot.
4. More than 90 percent enjoyed their work as Educational Aides.

In summary, most educational aides surveyed felt the Title I Educational Aide project was worthwhile, from the viewpoint of their own participation and the benefits accruing to identified pupils.

The educational aide questionnaire also gave respondents an opportunity to provide answers to a set of structured, open-ended questions. They were asked to list: things liked most about their experience; things liked least about their activities as an educational aide, and their most significant experiences while an aide in the Title I project. Response distributions to these three topics are found in Table 3.42. As a partial agreement with observations in previous sections, the majority of responses (55 percent) indicated that working with children was the most important aspect of the aide experience. They expressed interest in individualized instruction assistance in small groups and attending to the many needs of the most disadvantaged students. The teacher-aide relationship was a distant second in terms of frequency of response (19 percent). The aides mentioned working with classroom teachers and watching their communications with students. More than 15 percent of responses dealt with seeing progress made by pupils in math and reading.

TABLE 3.42 EDUCATIONAL AIDE EXPERIENCES*

Things Liked Most About Aide Experience	Percent	(N=183)
Working with children	54.6	
Relationship with classroom teacher	19.1	
Learning from classroom experience	15.3	
In-service training	6.6	
Cultural enrichment (field trips)	2.7	
Understanding student's family	1.7	
	100.0	

Things Liked Least About Aide Experience	Percent	(N=71)
Salary	26.8	
Inappropriate teaching materials	21.1	
Poor communications	18.3	
Too few workshops	15.5	
Unable to work with teacher, full-time	8.5	
Duty schedule	8.5	
Reassignment without adequate notification	1.3	
	100.0	

Most Significant Experience As An Aide	Percent	(N=128)
Learning to understand children and helping them with education and personal needs	32.8	
Experience fundamental learning processes	27.4	
Staff development activities	15.6	
Relationship with classroom teacher	10.9	
Interest shown by students	10.2	
Help from parents	3.1	
	100.0	

*Number of observations does not equal number of respondents due to multiple responses.

Few responses were made to the question regarding things liked least about the aide experience. Salary was the biggest complaint of aides, accounting for 27 percent of responses. Apparently, aides felt that when substituting for the classroom teacher they should be paid for such work at a rate appropriate to their responsibilities. (However, classroom teachers reported they were replaced by aides less than two percent of the time.) Lack of appropriate supplies, materials, and space were the second most frequently recorded answer. Although seven percent of responses indicated in-service training to be an appealing aspect of the educational aides experience, 16 percent said there were too few workshops and in-service training activities.

Listing the most significant experiences as an educational aide was closely related to an enumeration of things liked most about their aide experience. Nearly one-third of responses dealt with understanding children; retaining a unique understanding of each pupil's personality and helping children understand themselves and adjust to their environment. Closely associated to this, 27 percent felt seeing pupil's skills and attitudes towards learning to improve was the most rewarding experience as an aide. These two areas account for 60 percent of all responses.

CONCLUSIONS

Educational aides seemed enthusiastic about helping children with their math and reading problems. They indicated adequate preparation for assigned tasks and felt capable of fulfilling most requests made of them.

Aides were critical of some aspects of the Title I program, primarily the staff development component. Too many aides had not received training, and those aides who had, did not report the benefits that would be expected. They reported that training was not interesting and instruction was often poor. Some aides also felt that their not interesting and instruction was often poor. Some aides also felt that their duties were not sufficiently clearly defined.

Regardless of the negative statements, educational aides were satisfied with their work and felt the project was worthwhile and should be continued.

F. COMPARATIVE ANALYSIS

Based on data from the separate questionnaires administered to the four groups of Title I instructional personnel, comparative analysis of several key program aspects are provided below.

Although differing in their dependence on particular materials, all teachers relied upon the Competitive Reading Partnership. Reading resources and classroom teachers were more dependent upon McGraw-Hill materials, while 69 percent of math resource teachers used D. C. Health. Unfortunately these publisher's materials did not always arrive when required; in fact, materials were sometimes several months late.

All information and data lead to the conclusion that materials of the Competitive Reading Partnership are valuable in meeting the needs of students. However, which publisher's material provides the most improvement in Title I students' reading and math skills is presented in Section V. Most teachers, regardless of publisher source, felt CRP materials are effective, compared to the basal reader.

Another major consideration in the quality of instructional activities provided identified pupils is the program of staff development activities planned for the four instructional components.

Significantly more resource teachers participated in current training activities than classroom teachers or educational aides; in addition, more thought their training was relevant and useful. Major training areas for all teachers were education methodology and the Title I Plan of Operation. Few resource teachers thought their training of classroom teachers inadequate; although classroom teachers agreed, 36 percent still rated their training as inadequate.

Classroom and resource teachers were asked to list things liked most about their program participation their responses are found in Table 3.43. Distributions for resource teachers are similar, but both are significantly different from responses of classroom teachers ($p < .01$). Classroom teachers were quite satisfied with materials supplied through CRP, although only 52 percent were using these resources; resource teachers were slightly less enthusiastic.

It is understandable that a larger percentage of resource teachers than regular teachers enjoyed working with children individually and in small groups, as this is where they provided remedial instruction. Consistent with previous findings, few classroom teachers cited in-service training as an important aspects of the Title I program; however, a significantly larger number of resource teachers mentioned training.

Things liked least about the Title I program are shown in Table 3.44. All types of teachers found the late arrival of materials and its effect upon program planning unfortunate. Related to this, insufficient and inappropriate teaching materials were mentioned by resource teachers; also, they thought their efforts were spread among too many pupils. Their time was spread too thin; some of these resource teachers provided

TABLE 3.43 THINGS LIKED MOST ABOUT TITLE I PROGRAM
(Percentage Distribution)

Item	Instructional Component*		
	Reading Resource Teacher	Math Resource Teacher	Classroom Teacher
Competitive Reading Partnership	25	16	34
Working with Children	22	26	1
In-Service Training	17	16	5
Title I Staff Support	15	10	--
Parent Volunteer Corps	7	--	--
Cultural Enrichment	6	6	19
Freedom and Initiative	3	12	--
Use of Educational Aide	2	3	17
Student Interest	2	6	8
Resource Teachers	--	--	11
Miscellaneous	1	5	5
	100	100	100
	(N=87)	(N=73)	(N=140)

*Multiple answers permitted and not all participants responded

TABLE 3.44 THINGS LIKED LEAST ABOUT TITLE I PROGRAM
(Percentage Distribution)

	Instructional Component*		
Item	Reading Resource Teacher	Math Resource Teacher	Classroom Teacher
Poor Communications	20	13	17
Late Arrival of Materials	18	18	34
Inappropriate Teaching Materials	18	28	8
Too Few Teachers	18	15	--
Staff Development Activities	9	8	7
Too Few Educational Aides	5	--	14
Teacher Utilization	5	--	5
Poor Attitude of Title I Personnel	4	--	6
Program Coverage of Needy Children	3	15	6
Miscellaneous	--	3	3
	100	100	100
	(N=56)	(N=40)	(N=85)

*Multiple answers permitted and not all participants responded instruction to several hundred students per week. These comments are consistent with structured questions for teachers inquiring about problems with the Title I program; obtaining appropriate materials was a prime concern.

Instructional personnel thus reflected similar concerns about obtaining the resources to carry out their tasks effectively. While specific problems are indicated, each category of personnel appears to consider the other groups as useful, capable partners in the effort to improve the basic reading and mathematics skills and the overall educational achievement of Title I students.

G. CONCLUSIONS AND RECOMMENDATIONS

This section presents conclusions and recommendations from the four instructional groups that participated in the study as well as additional suggestions from the evaluator.

1. Title I Personnel Comments

Teachers and educational aides were requested to identify significant ideas intended to improve their effectiveness as Title I teachers and aides. Comments specifically applied to their specialty but were integrated to provide guidance as to the future direction of the overall program.

As seen in Table 3.45, each component differed in its suggestion for specific changes in the program. These distributions point out program requirements discussed in previous section, i.e., these recommendations are consistent with comments and responses made throughout the questionnaire data. There was no single, predominant recommendation, but major comments were grouped into two major categories: activities and curricula.

TABLE 3.45 RECOMMENDATIONS OF INSTRUCTIONAL COMPONENTS FOR IMPROVEMENT OF THE TITLE I PROGRAM
(Percentage Distribution)

	Instructional Components			
Recommendation	Classroom Teacher	Reading Resource Teacher	Math Resource Teacher	Education Aide
In-service training; geared to needs of students; more timely and more often	32	9	23	30
Timely arrival of learning materials	23	17	--	--
More education aides; number and for use full-time	21	7	--	12
Better diagnosis/evaluation of student strengths and weaknesses	13	19	23	--
Reduce student to teacher ratio	5	10	16	--
Better selection of materials and greater part in selection	4	17	26	1
More effective communications among Title I personnel	1	12	12	30
Cultural enrichment--expansion	1	--	--	--
Upgrade Educational Aides to professional status	--	---	--	27
Fewer workshops and more time with pupils	--	4	--	--
Miscellaneous	--	5	--	--
Totals	100	100	100	100

Most respondents stressed the need for improvement in the staff development training program for Title I personnel. It was mentioned that education was not geared to the needs of the personnel, i.e., trainees were made to fit into established programs. The timing of the training activities was sometimes inappropriate and the frequency of sessions insufficient. Teachers had begun to provide a course of instruction before they had themselves been given proper preparation. Personnel felt that staff development activities should provide timely and adequate information on diagnostic/prescriptive techniques and effective evaluative measures. Recommendations thus dealt with the need for changes in organization, content, and scheduling.

With regard to materials, resource teachers, especially, did not feel they had adequate participation in decisions affecting the choice of educational materials used in their learning centers. Moreover, the arrival of learning materials was not synchronized with the need for such material. More and better materials are needed on a timely basis.

Most teachers were quick to indicate the scarcity of educational aides. Although 93 percent of classroom teachers received the services of aides, apparently some did not have an aide full-time. Teachers felt that circumstances warrant demanding teacher aides as full-time assistants, or at the least one aide for every two teachers.

2. Evaluator Recommendations

Recommendations of the evaluator are limited to those which are policy manipulative in nature. That is, there are deficiencies in the Title I program that cannot be corrected by administrative directives or redesign of system components and educational functions. It was observed that educational aides are in short supply and resource teachers are unable to provide maximal supportive services to teachers and students due to teacher scarcity in relation to demand. Adequate service to all needy children, accomplished through an increase in Title I personnel, could be accomplished only by an additional influx of funds. Although funding has grown each year, the demand for such monies has risen even faster.

The following recommendations are offered for improvements in the scope and direction of the instructional compensation of the FY 75 Title I project in the D. C. Public Schools:

1. Major staff development activities should be provided prior to commencement of each school term. Training should emphasize:
    a. A more definitive document describing the Title I program (organization, functions, goals, communications channels) than the FY 72 Plan of Operations.
    b. Better definition of duties and responsibilities of all Title I instructional personnel.
    c. Effective and proper use of new and old teaching materials.
    d. Extensive training in Special Education. All staff personnel should have familiarity with problems of handicapped; for example, proper identification of children suffering from dyslexia.

2. Early diagnosis and identification of students, should be implemented. Identification of pupils must be accomplished prior to the

start of the school term, made possible by proper screening and examination of test score data.

3. Teaching materials and needed equipment must be available for distribution prior to the start of a school year.

4. Separate learning centers should be provided for all resource teachers—an atmosphere conducive to learning must be provided all identified students. If impossible to increase the number of supplemental instruction sessions, an attempt should be made to lengthen these sessions. The reported average length of 30 minutes seems inadequate for thorough absorption by pupils.

5. Resource teachers should provide classroom teachers with periodic, written reports on student progress.

6. Assurance should be provided that all resource teachers are qualified for the tasks required of them. Also, personnel changes during the school year that might affect continuity of instruction should be avoided.

7. Scheduling and coordination of resource teacher activities must be provided so that they do not interfere with reading and math instruction of regular classroom teachers.

8. A single reading and mathematics program should be initiated within grades and schools. That is, learning materials supplied by a single publisher should be used.

IV.

SUPPORTIVE SERVICES SELF-ASSESSMENTS

IV. SUPPORTIVE SERVICES SELF-ASSESSMENTS

A. PUPIL PERSONNEL SERVICES

1. Summary

The Pupil Personnel Services component is the principal support component to all instructional aspects of Title I programming in the District of Columbia. The component was organized to identify and minimize educational disabilities which prevent children from attaining maximal educational growth and development within the educational setting.

Separate assessments were made of each subcomponent of the Pupil Personnel Services effort, primarily through the use of interviews, questionnaires, and observation of personnel.

While specific progress and problems for various subgroups varied considerably, common concern was voiced about the extremely large caseloads of Pupil Personnel Team members. Personnel typically are responsible for so many different schools and students that they feel they are unable to adequately serve individuals and avoid a crisis orientation. Specific concerns were voiced concerning component administration, utilization of Pupil Personnel Team members by principals for tasks outside their component responsibilities, and staff development limitations. Personnel were typically convinced of the value of the Pupil Personnel Team approach, but concerned that they were unable to meet their full potential because of administrative and programmatic problems beyond their control.

2. Component Objectives

The causes of educational disabilities that prevent students from attaining maximal educational growth and development have been identified as being social, psychological and physical. These causes are interpreted by the Title I Pupil Personnel Service Team as needs of students that should be met or at least minimized to insure a maximal degree of academic achievement. The Pupil Personnel Services Team, along with other members of the Total Learning Center identify and serve students who are most severely handicapped by these problems.

The ESEA Title I Pupil Personnel Services program is designed to provide direct supportive services for selected students in grades kindergarten through three and seven through nine in Title I schools. The objective of the program is to provide maximal support to the students, parents, and instructional staff, to enable all Title I students to develop mastery in the basic skills and services that will remedy the basic inhibitors to learning and academic success in the areas of health, economic need, absenteeism, speech and language behavior, and emotional, personality, perceptual, and home problems.

3. Component Structure and Scope

a. Historical Background

The Title I Pupil Personnel Staff was organized in 1966 as a new multidisciplinary team to extend services for the most severely educational handicapped students enrolled in Title I schools. The Pupil Personnel Worker and Aide staff has incorporated into its ranks a diverse group of community workers such as practical nurses, lunchroom attendants, policemen, youth workers, and some parents of Title I children. Their unique range of backgrounds brings many of the experiences and resources of the community to bear upon those factors that prevent maximal student achievement.

In FY 69 the Speech Therapy component of Title I Pupil Personnel Services served only non-public schools. In FY 70 the component was expanded to serve Title I public elementary schools as well as the non-public schools. In FY 71 Title I Speech Therapists expanded their services to every level - pre-Kindergarten through senior high schools - in both public and non-public Title I schools. In FY 72 the program served grades kindergarten through three and seven through nine in Title I schools.

Structure and Personnel

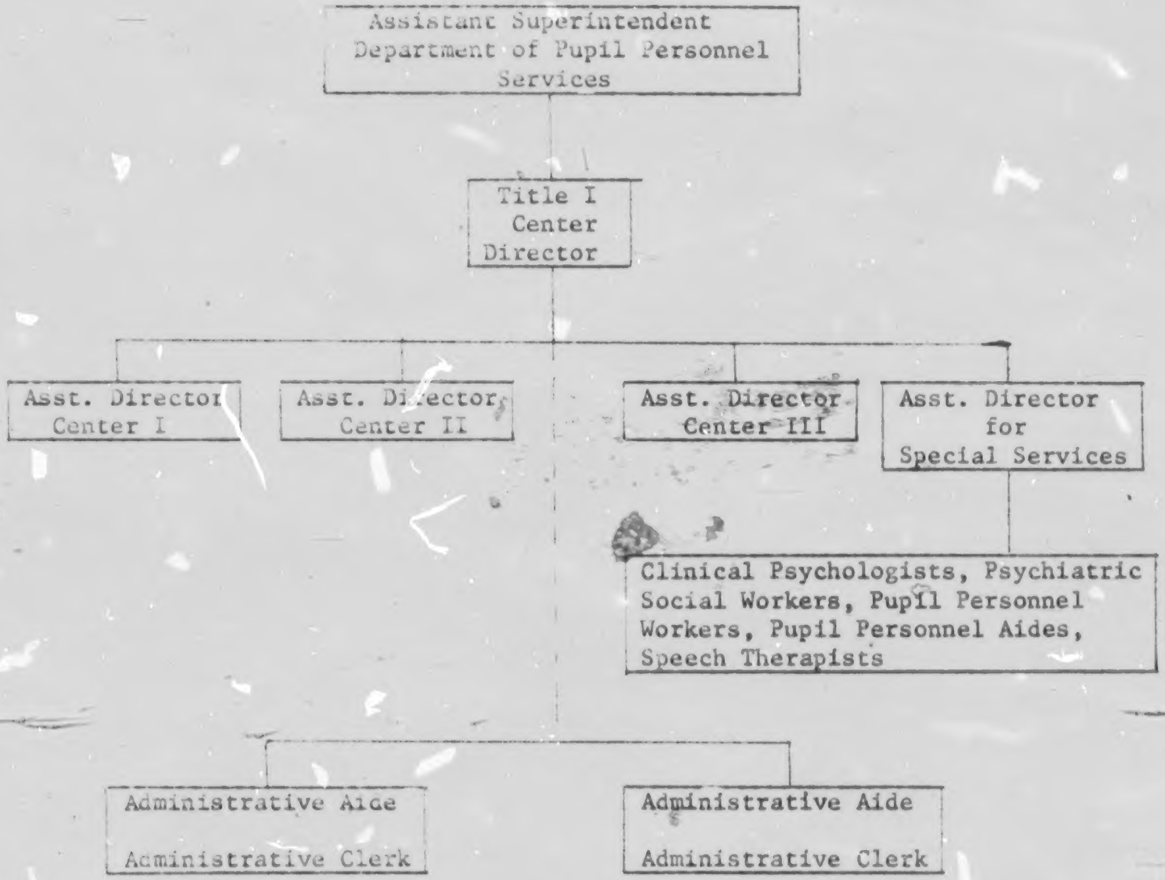
Pupil Personnel Team Organization is shown in Table 4.1

The approved budget for FY 73 provided for the following positions:

2	Supervisory Directors
4	Assistant Directors
6	Clinical Psychologists
10	Speech Correctionists
61	Pupil Personnel Workers
48	Pupil Personnel Aides
3	Administrative Aides
3	Administrative Clerks

The administrative staff consists of a director and four assistant directors. The major role of the administrative staff is to provide technical assistance to those involved in the delivery of supportive

TABLE 4.1 ORGANIZATION OF PUPIL PERSONNEL SERVICES


Assistant Superintendent Department of Pupil Personnel Services
Title I Center Director
Asst. Director Center I
Asst. Director Center II
Asst. Director Center III
Asst. Director for Special Services
Clinical Psychologists, Psychiatric Social Workers, Pupil Personnel Workers, Pupil Personnel Aides, Speech Therapists
Administrative Aide
Administrative Clerk
Administrative Aide
Administrative Clerk

PARTICIPANTS - All identified students in grades Kindergarten through 3 and 7 grade are eligible to participate in the Pupil Personnel Services Program. However, because of budgetary limitations the most severely educationally disadvantaged may be serviced. The FY 73 population includes approximately 14,000 students: 10,600 elementary; 3,000 Junior High and 600 non-public students.

services to Title I children. Their duties involve assisting in identifying specific needs of students, prescribing programs and activities to meet identified needs, monitoring task performance of supportive service staff as they relate to the identified need, and assisting Title I principals and Learning Center Coordinators to insure maximal achievement of program objectives.

CLINICAL PSYCHOLOGIST - The psychologists analyze and provide prescriptive recommendations and treatment in areas of growth and development, behavior modification, group dynamics, test interpretations and student profiles. They also aid teachers in designing new approaches to learning.

PSYCHIATRIC SOCIAL WORKER - The duty of this group is to provide maximal support to children with emotional and learning problems by bringing to bear all available community resources to meet the objectives of the Total Learning Center.

PUPIL PERSONNEL WORKERS - The duty of this group is to act as school-home-community liaison professionals. This component provides daily supportive counseling and guidance to students in areas of health, economic need, absenteeism, and home problems as they effect educational growth and development.

PUPIL PERSONNEL AIDE - This group of para-professionals works closely with the Pupil Personnel Workers and with the parents and the community to minimize impediments to children's learning and success.

HEALTH AIDE - The health aides assist the school nurse, pupil personnel workers and aides in screening children for health needs, such as taking heights and weights, screening for eye and dental defects, etc.

SPEECH THERAPISTS - The speech therapist diagnoses defects of speech and language and administers therapy individually or in small groups on a regular basis to Title I children. The therapist uses an inter-disciplinary approach in making and accepting referrals and counsels and advises teachers, administrators, and parents.

b. Delivery of Services

The Pupil Personnel Service works cooperatively with classroom teachers and other instructional staff to identify Title I children with retardation in reading and mathematics or behavior problems. The needs of these students are continuously assessed by the Pupil Personnel Team, and direct services are provided in the school, the home and the community. Activity reports, which indicate the students' needs and services being rendered, are provided for the principal and supervisors. Services delivered may include free lunch, clothing, securing food stamps for families, securing job training and jobs that will increase the family income level, coordinating and supervising tutoring services, arranging for dental and other health care, assisting in eliminating absenteeism and drop-out problems, providing regular speech services, and bringing to bear all community services on all problems, particularly emotional and behavioral, that hinder the child's progress. Services also include follow-up activities necessary to meet the needs of the child and insure continued success.

All identified students in grades Kindergarten through three and grade seven are eligible to participate in the Pupil Personnel Services Program. However, because of budgetary limitations only the most severely educationally disadvantaged may be serviced. The FY 73 population includes approximately 14,000 students: 10,600 elementary; 3,000 Junior high and 600 non-public students. The Pupil Personnel Worker accepts referrals from school personnel, students and parents. When services are requested, the worker or aide sets up a conference that will include all relevant school personnel. The child's needs are discussed and joint decisions are made as to the services to meet that particular student's needs.

c. Staff Development

The major thrust of the staff development program for Pupil Personnel Services is to improve the quality of supportive services to students and their families. Specific activities are designed to develop skills in understanding the developmental problems of students; detecting, minimizing, and eliminating non-educational impediments; developing interpersonal relationships; and interviewing. In addition, staff development includes confidential report writing, and activities designed to teach the effective use of community resources and techniques for conducting children and parent groups and carrying out one-to-one relationship with client and staff.

The actual procedures include on-the-job training and counseling through periodic contacts with individual staff members and regular monthly staff meetings that include discussion of specific elements of the job with emphasis on improving and refining methods of dealing with specific problems. Workshops, conferences and seminars are also held involving various disciplines within the Pupil Personnel Service department for Title I Pupil Personnel Services during FY 73.

Questionnaires were distributed to all Pupil Personnel Services Administrators. Since questionnaires were not completed, a structured interview was conducted with one assistant director, and a joint interview was conducted with the director and three assistant directors. Both interviews were carried out at a weekly Title I Pupil Personnel Services meeting in June, 1973.

Due to the limited amount of data available (no response to questionnaires) for this component of Pupil Personnel Services, an adequate assessment cannot be made. However, some conclusions can be drawn from the two interviews conducted principally with regard to component problems. Problems faced by the administrators are both budgetary and programmatic. Budgetary problems center around procedures for identifying students, the timing of the budget allocations and actual funds allocated for both professional and para-professional personnel. Because the major Title I emphasis is on reading and math, the administrators feel that some people believe supportive services do not contribute to student achievement and therefore are not very important. Programmatic problems result, due to the number of schools and students to be served, the small number of pupil personnel services teams, local school personnel pre-empting the authority of pupil personnel services supervisory personnel, the built in failures due to the emphasis placed on crisis treatment rather than prevention, and the lack of respect for social services as compared to instructional services.

Identification of Title I students for services was also a major concern. Because student pretest scores typically are not available until near the end of the school year, last year's lists of eligible students must generally be used; the problem was eventually handled in 1972-73 when Title I administrators told the principals that they could operate more effectively if it were structured to be fully operational at the beginning of each year.

Continuity of services is a related concern. The Pupil Personnel Services administrators feel that better results could be achieved if the teams were allowed to take a specific student cohort and provide them continuous services until the end of their elementary school career (more than six years for those identified in kindergarten). At present, there is an essentially new service group every year. Even the number of Title I schools has changed.

Administrative difficulties occur because principals may have a different idea from component administrators about what the Pupil Personnel Teams should be doing in their schools. When the teams carry out activities under the principal's direction, they have less time to carry out those duties assigned under Title I component specifications.

Specific recommendations were offered by the Pupil Personnel Services administrators and supplemented by the evaluation team:

1. That Budgetary Procedures be revised to permit this component to maintain adequate personnel as well as recruit qualified personnel. This revision should be such that allocations are known in the spring before each funding year.

2. A system for identifying Title I students be devised and implemented that includes The Title I Pupil Personnel Administrators in the decision making process.

3. That mandatory workshops with emphasis on role clarification (specifically outlining the duties and responsibilities of pupil personnel aides and workers) be held at the beginning of the year and periodically throughout the year, for Title I principals, teachers, and the Pupil Personnel Services Team.

4. That the role of the school counselor be defined in relation to the Pupil Personnel Team.

5. That an accountability system be established.

6. That the scope of the Pupil Personnel Services Program be defined in such a way that personnel will be more effectively utilized and services more concentrated.

7. That the program move in the direction of crisis prevention.

8. That funds be increased to reduce the caseload

per person in each Pupil Personnel Services Center.

9. That the Title I Pupil Personnel Services Administrators be granted more autonomy to establish relationships with existing community services to better serve the identified students.

10. That all Pupil Personnel Services Administrators be encouraged to actively participate in all phases of the evaluation and that evaluation be an on going process.

d. Pupil Personnel Workers, Aides, and Health Aides

The FY 73 budget provided funds for 48 Pupil Personnel Aides, 61 workers and 27 health aides. The total actually employed during FY 73 were 38 pupil personnel aides, 56 workers, and 20 health aides. Of these groups, 15 aides, 25 workers and 18 health aides responded to the evaluation questionnaires.

The questionnaires consisted of sixteen items, twelve items were forced-choice and the remaining four were free response questions. The items were designed to assess program administration, delivery of services, and staff development.

EXPERIENCE

Respondents were asked about their experience. Thirty-five percent of the group have been employed in the school system for more than three years, 48 percent for one to three years, and 17 percent for less than six months.

ACTIVITIES

Pupil Personnel workers and aides and health aides were asked to indicate how frequently they were involved in helping to meet student problems and needs. Table 4.2 shows in percentages how frequently the respondents were involved in specific student problem areas.

Contacting and working with parents, attending to students' clothing needs, and keeping records of services performed were the areas that most of the respondents were involved in very frequently.

The respondents were asked to indicate the impact that their services had on the Title I program. The question was constructed to allow the respondents to respond to one or more categories of possible impact. For example, one respondent could indicate that their Pupil Personnel Services had impact on improving students' health and also on improving their psychological well-being, while another respondent could indicate that the services had an impact on improving student health, family conditions and academic performance. The total responses were as follows: Most respondents (87 percent) indicated that their services had impact on the emotional adjustment and psychological well-being of the students: 77 percent responded that their services had improved student health by identifying and facilitating the correction of health and medical problems, and 55 percent indicated that their services had improved student productivity and academic performance.

The respondents were asked to rank order the problems they found among identified students. They were asked to assign a number from 1 to 7 (with 1 being the greatest) to the problem. The specific problem areas were chosen based on data gathered during the phase I visitation to

TABLE 4.2 PERCENTAGE OF PUPIL PERSONNEL AIDES, WORKERS AND HEALTH AIDES INVOLVEMENT IN STUDENT PROBLEM AREAS

	Very Freq.	Freq.	Infreq.	Never
Attending to student clothing needs	52%	24%	16%	8%
Contacting & working with parents	64%	24%	5%	7%
Taking student to clinic	31%	16%	21%	32%
Administering first-aid	36%	17%	19%	28%
Student Attendance	43%	17%	10%	30%
Vision Screening	31%	16%	19%	34%
Taking heights and weights	35%	10%	19%	36%
Confering with teachers & Staff personnel on				
Student problems	50%	24%	14%	12%
Cultural enrichment activities (recreation-field trips, etc.)	26%	26%	16%	32%
Attending local & city-wide meetings	22%	33%	14%	31%
Assisting teachers in classroom	19%	16%	33%	32%
Establishing student clubs and groups	22%	17%	28%	33%
Counseling students	40%	24%	16%	20%
Tutoring students	38%	21%	12%	29%
Identifying and handling student problems	57%	24%	7%	12%
Keeping record of services performed	67%	21%	3%	9%
Referring students and parents to:				
Community agencies	57%	21%	12%	10%
Accompanying students to special programs	22%	16%	26%	36%
Participating in staff development	33%	22%	10%	35%

the schools. Table 4.3 shows the responses. Poor nutrition, behavior problems and economic need were viewed as the greatest problems encountered during FY 73.

As stated above, one of the duties of Pupil Personnel Workers for FY 73 was to act as the home-community liaison professional. To assess the effectiveness of Pupil Personnel Services in this area, the respondents were asked to indicate the number of Title I parents contacted during the year, how frequently they were contacted, and the reasons for contacting them.

As would be expected from their job responsibilities, Pupil Personnel Workers and aides had most contact with parents during the year. Twenty-one percent contacted more than 151 parents each, with the remaining 88 percent having contacted 50 to 100 parents each. Of the health aides responding, 17 percent contacted over 151 parents each, 22 percent contacted between 31 and 40 parents each and the remaining 61 percent had contact with an average of 30 parents each. The reason given by most pupil personnel workers and aides for contacting parents was absenteeism. Forty-seven percent of the respondents contacted parents concerning absenteeism very frequently. The second most frequent reason for contacting parents was that of economic need. Forty-three percent of the respondents contacted parents most frequently for that reason. Other frequently mentioned reasons for contacting parents were related to academic problems, encouraging parent involvment, counseling parents, and obtaining permission to test or work with students.

TABLE 4.3 PERCENTAGE OF RESPONDENTS SHOWING HOW PROBLEMS RANKED WITH THE GROUP

ORDER	BEHAVIOR	FAMILY PROBLEM	LACK OF MOTIVATION	ECONOMIC NEED	NEED FOR BETTER SELF IMAGE	POOR NUTRITION	NEED ADULT INTERESTED IN THEM
0	10%	10%	19%	10%	17%	19%	12%
1	36%	21%	29%	29%	17%	47%	19%
2	15%	16%	7%	14%	9%	3%	19%
3	9%	21%	16%	9%	10%	10%	12%
4	7%	5%	21%	12%	14%	2%	12%
5	10%	9%	16%	9%	17%	9%	3%
6	5%	7%	5%	14%	3%	7%	7%
7	8%	4%	3%	3%	3%	3%	16%

Of the health aides responding, 49 percent listed health problems as the number one reason they contacted parents. Another 45 percent said contacts were most often concerned with clinic appointments. The remaining six percent said they most often contacted parents to make them aware of available services. These responses reflect the specific responsibilities of the health aides.

Over half (53 percent) of pupil personnel workers, aides and health aides contacted parents through home visits. The remaining 47 percent contacted parents by telephoning and/or writing.

In assessing the effectiveness of the pupil personnel team, it is imperative to consider the problems encountered in delivering services. The questionnaire was not designed to fully determine the effects of the problem. Moreover, the data did not lend themselves to an analysis of the problems in terms of how they were solved and the effectiveness of the solutions. The findings do, however, indicate the frequency of occurrence of specific problems.

The problem most frequently encountered by 33 percent of the pupil personnel services team respondents was serving identified students whose siblings needed services but were ineligible. The second problem, encountered by 25 percent of respondents, was the delay in identification of students. A summary of the responses to this question is shown in table 4.4.

TABLE 4.4 FREQUENCY OF PROBLEMS ENCOUNTERED BY PUPIL PERSONNEL WORKERS, AIDES AND HEALTH AIDES

	Percent Responses				
Problem	Very Frequent	Frequent	Not Freq.	Never	No Response
Inadequate work space or facilities	21	12	24	35	8
Inadequate communication between regular school staff, Title I personnel, parents, etc.	19	17	35	21	8
Identified students whose siblings need services but are ineligible	33	31	14	9	13
Delay in identification of students	25	33	22	12	8
Too much clerical work	16	39	31	12	12
Parking	12	17	22	29	20
Unable to find clothing for needy children	7	14	29	35	15
Lack of sufficient funds for emergency assistance	19	19	19	29	14
Inadequate transportation	12	26	24	19	19
Inadequate direction for administration	12	10	35	26	17

A major consideration in assessing the overall effectiveness of this pupil personnel services component is the quality and effectiveness of the in-service training. One measure of the quality of in-service training is its perceived usefulness to its participants.

Approximately 55 percent of the pupil personnel workers, aides, and health aides participated in some in-service training specifically related to their job assignments. Of this 55 percent, 21 percent found the training to be a great help. On-the-job training appeared to be of greatest help to the majority of the respondents. Participation in workshops, conferences, and seminars was viewed as being of some help to approximately 26 percent of the respondents. Table 4.5 shows the usefulness of the specific staff development activities to the respondents.

Based on other questionnaire data, 29 percent of the respondents viewed the staff development overall as adequate in preparing them to do their job effectively.

JOB SATISFACTION

The respondents were asked to indicate the degree to which they were satisfied with their work in pupil personnel services. Data for these responses was analyzed separately for the pupil personnel aides/workers and the health aides. The rational for this separate analysis is that the work experiences of the workers and aides are different from and are more varied than those of the health aides, and insight into dissatisfactions indicated may be found in specific work experiences.

TABLE 4.5 USEFULNESS OF IN-SERVICE TRAINING TO PUPIL PERSONNEL WORKERS, AIDES, AND HEALTH AIDES

Activity	Percent of Respondents who participated in activity	PERCENT RESPONSES			
		No Help	Little Help	Some Help	Great Help
On the job training	43	8	2	12	21
Participation in workshops, conferences and seminars	58	9	6	26	17
Discussions on methods of dealing with specific problems	53	10	7	21	15

Of the responding pupil personnel aides/workers, nearly 55 percent reported they find their work very satisfactory, 36 percent find their work fairly satisfying, and slightly less than nine percent find their work not satisfactory. Sixty-one percent of the health aides indicated their work as health aides was very satisfying; 28 percent find their work fairly satisfying, and 11 percent find their work not satisfying at all.

The respondents were asked to list the three most significant experiences and the things they like most about their Title I work in Pupil Personnel Services. All respondents listed helping students and their families as the most liked experiences. Other experiences, such as involvement in workshops, observing student progress, involvement in total school activities, and coordinating activities and services for student needs were also listed as liked or significant.

TABLE 4.6 PERCENTAGE RESPONSES TO THINGS LIKED LEAST ABOUT TITLE I EXPERIENCES ARE SHOWN BELOW:

Least Liked Experiences	Pupil Personnel Aides/Workers	Percent Responding Health Aides
Lack of Communication	17	—
Too much work	7	38
Lack of Office space	7	—
Too heavy case load	30	62
Lack of support from schools & Title I staff	33	—
	100%	100%

Lack of support from school and Title I staff and too heavy case load are among the least liked experiences (See table 4.6) of Title I pupil personnel aides/workers, while the majority (62 percent) of the health aides considered a too heavy case load as their least liked experience. Too much paper work was also listed as a complaint by a large portion (38 percent) of the health aides.

OBSERVATIONS AND CONCLUSIONS

Title I pupil personnel aides/workers and health aides were observed periodically during the first four months of the evaluation. Periods of evaluation were short, usually lasting from one to two hours. Both groups were observed at different periods of the day. Some observations were made during morning hours and some during afternoon hours. Pupil personnel aides/workers and health aides were observed performing various duties, some of which were questionable in terms of the duties outlined in the Plan of Operation for FY 1973. Among those non-prescribed duties were maintaining office phones, assisting with office records, filling in for classroom teachers, running errands for school staff, and typing for office staff. When interviewed, a majority of the respondents (53 percent) estimated that as much as 12 hours per week was sometimes spent in performing those chores, which were usually assigned by the school principals.

It should be recalled that 36 percent of the pupil personnel aides/workers and 62 percent of the health aides felt that their case loads were too large. Although the data analysis yields no conclusive evidence that there is extensive misuse of this component staff's time, the combined information from the instruments and the observation suggests that a significant problem may exist.

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A related concern is suggested by the pupil personnel aides interviewed who indicated that they are asked to perform the same duties as the pupil personnel worker but are paid at a lower salary than the workers. Data from questionnaires suggests that there is no distinction between the actual duties performed by the pupil personnel aides and those performed by the pupil personnel workers, as reported by the personnel themselves.

RECOMMENDATIONS

Respondents were asked to make recommendations concerning how to improve their effectiveness as members of the Title I Pupil Personnel Services Team. The recommendations were combined with those of the evaluation team and are presented below:

1. The size of Pupil Personnel Services subcomponent should be increased to reduce both the number of schools per person and the actual case load of each person. This could be partially accomplished by the filling of all budgeted positions and limitations of team activities to those specified in the Title I Plan of Operation.

2. A workshop with emphasis on role clarification should be held at the beginning of the school year that includes Title I teachers, principals, pupil personnel aides/workers, health aides, and Title I Pupil Personnel Services administrators.

3. An efficient system in addition to the weekly meetings is needed, to facilitate communication among local schools, Title I office and pupil personnel services staff.

4. The positions of pupil personnel aides and health aides should be upgraded.

5. Periodic meeting should be held with school staff and faculty.

e. Speech Therapists

A questionnaire consisting of 25 items was designed to collect from speech therapists data. The first eight items on the questionnaire were semantic differential items designed to assess program goals and administration. The remaining questions were forced-choice and open-ended items designed to assess the effectiveness of the therapy program and the staff development program. Data was collected during the month of June, 1973.

The Title I Budget allotted funds for ten speech therapists for FY 73. There were nine therapists employed during the school year, and eight therapists responded to the questionnaire and participated in the interviews.

ACTIVITIES AND EFFECTIVENESS

According to the Title I Plan of Operation for FY 1973, speech therapists are to use an interdisciplinary approach in making and accepting referrals and counseling teachers, parents, and administrators.

To assess the counseling function, the therapists were asked if the procedures used to communicate follow-up action resulting from student referrals were adequate in terms of reporting back to administrators, teachers and parents. Forty percent of the responding therapists agreed that the procedures were adequate, 47 percent felt that they were inadequate and 13 percent had no opinion. Over half of the respondents (56 percent) felt that the procedures for reporting back to teachers were inadequate, while 26 percent agreed that the procedures were adequate and 18 percent had no opinion. In terms of procedures for reporting back to parents, 63 percent felt that the procedures were inadequate and 37 percent felt they were adequate. Thus the therapists feel that problems exist with these procedures. The respondents were asked if facilities and clerical services available were adequate to help them perform their duties. The majority of the respondents (62 percent) felt that facilities and clerical services were not adequate; only 38 percent agreed that they were adequate.

To evaluate the actual provision of speech therapy by this component, it was necessary to determine if time alloted for cases was sufficient, analyze the types of cases treated, and assess the effectiveness of the therapy or treatment program. Therapists themselves indicated serious time constraints.

In terms of time alloted or available for case treatment, eight percent of the responding therapists felt that there was not sufficient time to conduct corrective therapy sessions with their cases. Fifty percent of the respondents indicated that there was not enough time to give individual therapy. Sixty-three percent said that personnel reassignment interrupted the time available to individual cases, and felt that having the program spread over too many schools negatively affected the amount of time available for therapy sessions. Lateness in beginning the program and the addition of new schools to the caseload during the year were additional factors in the insufficient amount of time available for therapy sessions, according to 88 percent of the respondents.

The therapists were asked how frequently they worked with specific speech defects. The responses in Table 4.7 show that the majority of the therapists (75 percent) were very frequently involved in working with students who had articulation problems. Seventy-five percent were also frequently involved in treating cases with delayed speech. Other speech defects frequently worked with by therapists were substitutions and distortions (38 percent). Twelve percent said they never treated each of the following: articulation, substitutions, distortions and voice problems. There are thus considerable variations in types of speech problems treated by different therapists.

The respondents were also asked to rate their overall effectiveness in helping students with the above named speech defects. Half the respondents rated themselves effective. The remaining half rated themselves as quite effective (25 percent), not very effective (13 percent), or not effective at all (13 percent).

The speech problems that the therapists felt they were most effective with were:

Articulation	75%
Lisps	38%
Stuttering	25%
Frontal Emissions	13%

Conversely, the speech problems the respondents considered themselves least effective with were:

Stuttering	38%
Voice disorders	25%
Delayed Speech	26%

TABLE 4.7 FREQUENCY OF TREATMENT OF SPECIFIC SPEECH DEFECTS

Defect	Very Frequent	Frequent	Infrequent	Never
Articulation	75%	13%	0%	12%
Lisp	63%	25%	12%	0%
Delayed Speech	13%	75%	12%	0%
Stuttering	0%	38%	38%	24%
Voice Disorders (pitch, quality)	13%	25%	50%	12%
Substitutions	50%	38%	0%	12%
Distortions	50%	38%	0%	12%
Frontal Emission	25%	25%	13%	0%

Eleven percent of respondents felt there were no speech problems that they were ineffective in working with.

Respondents were asked to indicate things that would help them to be more effective in offering speech correction services to identified children. (They were instructed to check as many items as applied, which accounts for a total of more than 100%. The following responses were given: (1) 88 percent indicated that additional private work areas would enable them to be more effective in offering speech corrections; (2) 75 percent felt that additional speech correctionists would help them to be more effective; (3) 63 percent indicated that additional supplies and materials would be helpful; (4) 50 percent each indicated that better organized programs and fewer meetings to attend would help them to be more effective; (5) 38 percent indicated that allowing therapists to help siblings of identified children and assigning fewer schools per therapists would help them to be more effective in offering speech correction services to identified students.

In addition to the problems relating to time, Title I speech therapists encountered several other problems that they felt made it difficult to deliver services effectively. Sixty-three percent indicated that inadequate work space and inadequate supplies had a negative effect on services. Other significant problems were teacher resentment over lateness in starting the program (noted by 50 percent of the respondents) and deletion of schools from the case load (specified by 25 percent). Inadequate departmental organization and student discipline problems were each indicated as problems by 13 percent of the therapists.

STAFF DEVELOPMENT

The staff development component of Pupil Personnel Services, and more specifically speech therapists, is designed to develop confidential report writing resources, and techniques for conducting children or parent groups as well as techniques for handling one-to-one relationships with clients and staff. Staff Development procedures include on-the-job training and counseling, monthly staff meetings, workshops, conferences and seminars.

To assess the perceived effectiveness of this component for speech therapists, the respondents were asked questions about the content and focus of the staff development program, the usefulness of the programs and the number of sessions they attended. A majority (74 percent of the responding speech therapists did not participate in any staff development programs. Of the 26 percent who did participate, 28 percent had attended one staff development activity, 38 percent had attended two, 13 percent had participated in three activities, and the remaining 11 percent did not indicate how many activities they had participated in.

Thirteen percent of those who participated in staff development had attended half day orientation sessions. The remaining 67 percent attended either Title I Educational Institutes (a week-long intensive instructional period) and/or follow-up seminars and workshops.

The content of the staff development activities is described below: Respondents were asked to check all phrases that best describe the content of the staff development program. Seventy-five percent of the therapists who said they had participated in Staff development activities did not respond to this question at all. Thirteen percent described the content as "humanistic education techniques" and 12 percent described it as "educational methodology." A third choice, "psychological factors in poverty," was not checked by any of the respondents.

To determine the focus of the staff development activities, the respondents were given a list of activities and asked to check all that applied in describing the focus of the activities in which they participated. Table 4.8 shows the response to that question. The staff development activities apparently focused mainly on techniques of interviewing and carrying out one-to-one relationships with clients and staff. There was little focus on case recording or effective use of community resources.

An item relating to staff development needs showed interesting results. The respondents were asked to indicate in which area(s) (listed in table) they felt a personal need for improvement in order to be more effective in the Title I program. Thirty-eight percent felt they needed improvement in their ability to effectively use community resources. Thirty-eight percent felt they needed to improve confidential report writing or case recording. Twenty-five percent felt they needed to improve in detecting, minimizing and/or eliminating non-educational impediments.

Twenty-five percent also indicated that they felt a personal need for improvement in understanding the developmental problems of students and another 25 percent felt a personal need for improvement in conducting children and parent groups. Although these areas are specified in the Title I Plan of Operation for FY 1973, there was little focus on them in staff development.

TABLE 4.8 DESCRIPTION OF FOCUS OF STAFF DEVELOPMENT ACTIVITIES BY RESPONDENTS

Staff Development Activity	Percentage of Responses
Detecting, minimizing and/or eliminating non-educational impediments	13
Understanding the developmental problems of students	13
Techniques of Interviewing	25
Carrying out one-to-one relationships	13
Developing interpersonal relationships	13
Caserecording (confidential report writing)	13
Effective use of community resources	0

The apparent failure of the staff development efforts to meet speech therapists' in-service training needs is reflected in the assessment of the effectiveness of staff development effort in helping them to do their jobs. Speech therapists rated the overall effectiveness of the staff development in which they participated as follows: effective (25 percent), not very effective (37 percent), and not effective (38 percent). None of the participants rated the program as very effective. The activity that appeared to be most useful to the therapists were discussion methods of dealing with specific problems and on the job counseling and training. (shown in Table 4.9.)

JOB SATISFACTION

Speech therapists were asked to list the things they liked most and least about their Title I experiences.

Forty percent of the respondents listed as their most liked experience being a part of a team approach, and 38 percent listed working with children with a variety of cases. The remaining 12 percent listed workshops and seminars as the most liked experiences. The least liked experiences were too many schools/too few therapists (listed by 75 percent), too little time for each case (50 percent), too many abrupt changes in program (25 percent), inadequate workspace (46 percent), lateness in starting the program (13 percent).

INTERVIEW FINDINGS

Speech therapists were briefly interviewed at the time the questionnaires were collected. Several significant findings resulted. First, 70 percent of the therapists reported that they were generally pleased with their progress with children with problems. Second, there was some

TABLE 4.9 DEGREE OF HELPFULNESS OF STAFF DEVELOPMENT TRAINING ACTIVITIES

		Percent Responses			
Activity	Percent Who Participated	No Help	Very Little Help	Some Help	Great Help
On the Job training & counseling	26		18	20	62
Participated in workshop conferences and seminars	50	47	13		
Discussion on Methods of dealing with specific problems	63		3	9	88

(N=139*)

*Respondents were permitted to check more than one activity.

disagreement among the therapists as to where this subcomponent should be placed in order to yield maximum delivery of service. Fifty-seven percent felt that speech correction should be placed in special education, and the remaining 43 percent felt that it should be left with pupil personnel services. Third, the interviewees expressed a concern for program planning. They indicated that there was a need for better planning in terms of case selection, ordering equipment, and supplies and school assignments. Apparently, proximity of schools is not a major consideration in assigning therapists to schools. However, most therapists (83 percent) could not explain procedures used to assign them to schools and thought there were no set procedures. Eighty-eight percent of the therapists also expressed concern for lack of guidelines for case referrals, selection, and therapy procedures. Further questioning on this point revealed that the concern was for the kinds of referrals made by teachers and other staff. In conjunction with this, therapists felt that teachers and other school staff are confused as to the kinds of problems therapists are qualified to deal with. Ninety-three percent of the therapists indicated that there was a need for workshops that would involve Title I teachers, principals, counselors and other staff members to inform them of the speech therapy program and procedures.

CONCLUSION

Speech therapists indicated a number of problems hampering their effectiveness. The majority of the respondents indicated that procedures were inadequate for communicating follow-up action resulting from student referrals to administrators, teachers and parents. The respondents also agreed that facilities and clerical services were unavailable to help them perform their duties. Eighty percent of the therapists felt that the time available to conduct therapy sessions was insufficient.

Fifty percent of the respondents indicated that better program organization would help them to be more effective in delivery of services to identified students. Another thirty-eight percent felt that they could be more effective if they were permitted to offer service to siblings of identified students. Inadequate work space, and supplies, addition and deletion of schools, inadequate departmental organization and student discipline problems were among the other problems encountered by the therapists that effected the delivery of services to Title I identified students.

The FY 73 staff development component for speech therapists was not effective in terms of the specified goals. The overall staff development program was rated "not effective" by the 38 percent of respondents.

RECOMMENDATIONS

Recommendations of the therapists were incorporated into the recommendations of the evaluation team. The joint recommendations are:

1. That more staff development activities be made available to speech therapists.
2. That the staff development component be expanded to include the following areas of focus:
    a. Confidential report writing;
    b. Effective use of community resources;
    c. The developmental problems of students;
    d. Detecting, minimizing and/or eliminating non-educational problems.

3. That the speech therapist-identified student ratio be decreased to make more therapy time available per students.
4. That the number of schools be decreased per therapist and additional therapists be hired to service the remaining schools.
5. That siblings of identified students be served when necessary to effect a greater carryover of corrected speech for identified students.
6. That the program be reorganized to: (a) develop guidelines for school assignments; (b) develop guidelines for referrals; and (c) develop procedures for providing consistency of services to all schools.
7. That adequate work space, supplies and clerical services be provided for therapists.
8. That program planning be redesigned to insure program implementation at the beginning of the school year.
9. That deletion and addition of schools and personnel reassignment be kept at a minimum to maintain stability of services to identified students.
10. That therapists have input into the decision-making processes for component program development, planning and implementation.
11. That workshops with speech therapists be held for Title I teachers, principals and other school staff to explain the speech correction program, with emphasis placed on the role of the speech therapists.

f. Psychiatric Social Workers

There were six psychiatric social workers working as members of Pupil Personnel Teams during FY 73. One psychiatric social worker reponded to the written questionnaire and six participated in the interview.

The questionnaire consisted of twelve force-choice items and four free-response questions. The instrument was designed to assess the effectiveness of the program administrators, the delivery of services and the staff development component.

Because the written questionnaire was completed by only one psychiatric social worker, responses to the instruments will be summarized briefly, and interview findings discussed in more detail.

QUESTIONNAIRE FINDINGS

According to the respondent, psychiatric social workers are frequently involved in identifying and handling a wide range of student problems as well as counseling students, contacting and working with parents, and conferring with teachers and staff concerning student problems. They must also maintain records of services performed. The respondent felt that the social workers' efforts had positive impact upon student well-being, academic performance, emotional adjustment, student productivity, family conditions, and identification of medial problems.

Psychiatric social workers are responsible for providing maximum support to children with emotional and learning problems by bringing to bear all available community resources to meet Total Learning Center objectives. The social worker who responded to the questionnaire reported that he had contacted between 31 and 40 parents during the school year. Major purposes of parent contacts were related to their child's absenteeism or academic problems, making parents more aware of available services, to counsel parents, and carrying out regular home visits.

The social worker indicated several frequent problems in carrying out his job. They included delay in the identification of eligible students, inadequate direction from administration, and inability to provide services to ineligible siblings. Staff development activities were judged not very adequate in preparing him to do his job effectively. Overall, the respondent expressed satisfaction with his job; lack of adequate direction was the major reported complaint.

OBSERVATION AND INTERVIEWS

The six psychiatric social workers interviewed indicated that they felt they were effective with the cases they handled, because of the following factors:

1. Use of child-centered approach;
2. Ability to follow-up on their referrals;
3. Involvement in community affairs;
4. Good working relationships with clients;
5. Communication with parents;
6. Confidence in what they did.

Asked to describe what theoretical orientations they felt be most effective with the Title I target population, four of the six social workers supported a service orientation, which would allow them to bypass parents and child and move directly to community resources.

They felt this was desirable because:

1. It would maximize the value of their working hours;
2. They could more effectively cover the large number of schools and students assigned to each of them;
3. They could get more out of a team approach.

Several problems of the social worker responsibility were discussed. Respondents felt their major problems were a too-large caseload and "bureaucratic" constraints. Each social worker currently had from 350 to 400 cases, which they regarded as far too many. Assignment to 14 schools -- primary responsibility for seven and back-up responsibility for another seven -- was also considered unmanageable. They were forced to handle only those cases judged to be the most severe -- a crisis rather than preventive orientation. Administrative problems involved such concerns as lack of space, line of authority questions, overlapping responsibilities, etc. They felt that staff scarcity, inadequate administrative direction, and limitations on delivering needed services hampered their effectiveness. Because of travel and administrative time requirements, too few hours were left for providing therapy.

CONCLUSIONS

The caseloads of the psychiatric social workers are clearly far too large, judged by any professional caseload standards. Even if a social worker spent eight hours per day providing therapy in one-hour sessions, he could see each member of a 400 person caseload only once every ten weeks - no more than four times a school year. Significant results cannot be expected from such an approach. Actual therapy time available is far less than eight hours a day. Social workers are forced too often to deal with crisis situations rather than provide needed in-depth services.

RECOMMENDATIONS

It is recommended:

1. That the caseload of each psychiatric social worker be reduced significantly, even if this means servicing fewer clients.

2. That additional psychiatric social workers be added to the team.

3. That a service orientation be adopted to make the component more effective with the large target population.

4. That a meaningful staff development program be developed for the psychiatric social workers.

5. That psychiatric social workers be included in the process of program planning and development.

d. Clinical Psychologists

A 32 item questionnaire was administered to all six Title I clinical psychologists. The instrument was designed to assess the program administration, delivery of services and staff development. Questionnaires were distributed and collected during the month of June. No personal interviews were conducted for this component.

ADMINISTRATION

The administration of the Clinical Psychologist subcomponent was assessed by determining psychologists' responses regarding:

1. Adequacy of procedures to communicate referrals and follow-up;
2. Availability of necessary facilities and clerical services;
3. Adequacy of procedures for delivery of services to students;

4. Understanding of goals and purposes of program.

Referral procedures were not considered entirely adequate. Four of the psychologists felt that procedures for reporting back to parents were inadequate, and only two felt that procedures for communicating referrals and follow-up actions to administrators and to teachers were adequate.

Most psychologists appeared to be receiving adequate facility and clerical support; four reported satisfaction with both.

Half the respondents felt that adequately organized and established procedures existed for delivery of services to Title I students; the other half felt that appropriate procedures were clearly described to them. However, five of the six felt that their training and experience prepared them adequately for Pupil Personnel Services tasks, and all six indicated that they clearly understood the purposes and goals of the Title I Pupil Personnel Services component.

ACTIVITIES AND EFFECTIVENESS

The clinical psychologists were asked to rate the importance of various approaches and responsibilities to their perceived role within the program. Table 4.10 shows the results. Devising prescriptive plans for pupils with emotional problems and modifying student behavior which interferes with growth and development were considered extremely important by four of the psychologists. New approaches to learning was considered unimportant by four psychologists, and was not considered an important part of their role by any.

Respondents were asked to list any additional roles of a clinical psychologist that they considered important. Two mentioned behavior

TABLE 4.10 RATING OF ITEMS RELATING TO ROLES OF CLINICAL PSYCHOLOGISTS

Activity	Number Responding					
	Extremely Important	Very Important	Important	Not very important	Unimportant	No Response
To diagnose and formulate individualized prescriptive plans for pupils with learning problems	3	1	1			1
To devise prescriptive plans for pupils with emotional problems	4	1				1
To modify pupil behavior that interfere with facets of his growth and development	4	1				1
To develop pupil profiles	1		2	1	1	1
To assist the classroom teacher in developing new approaches to learning				1	4	1
To conduct teacher/pupil conferences	2	3				1
To conduct conferences with parents concerning their children	2	3				1
To interpret standardized and non-standardized tests	2	1	1		1	1

(N=6)

modification techniques. Participating in parent-school conferences to plan better program and seeking use of community agencies on behalf of student needs were also listed by respondents.

Four of the respondents strongly agreed that specialized personnel and community resources were not available to them on a referral basis.

Respondents were asked to indicate the percentage of pupils who were referred from various sources. Pupil Personnel workers were key referral sources.

Of the pupils diagnosed as learning disabled, 43 percent were referred by teachers, 22 percent by principals, 11 percent by parents, and 24 percent by pupil personnel workers. Pupils diagnosed by clinical psychologists as emotionally disturbed were referred by teachers (19 percent), principals (8 percent), parents (5 percent), and pupils personnel workers (68 percent).

Clinical psychologists reported that they were able to develop beneficial individualized prescriptive programs for 40 percent of the cases referred to them during FY 73. Half of the prescriptive programs were for learning disabled, 34 percent for behavior difficulties, and 16 percent for pupils with low academic achievement. Psychologists were not able to develop prescriptive programs that were beneficial for 33 percent of the pupils with emotional disturbances, 34 percent of the pupils with physical handicaps, and 33 percent of the pupils with poor attendance problems.

Five of the six clinical psychologists reported they spend half of their time in tests interpretation. According to the respondents, 20 percent of their time was spent in therapeutic counseling, and the remaining 30 percent in providing help in growth and development (8 percent), behavior modification (15 percent), designing new approaches to learning (7 percent).

In the delivery of services to Title I students, periodic assessment should be made of pupil progress. The clinical psychologist was asked to indicate where the most emphasis is placed in evaluating pupil progress. Three of the respondents placed the most emphasis on the interview and the case study. Two placed the most emphasis on formal standardized test results. One said there is no set procedure.

STAFF DEVELOPMENT

The respondents were asked to indicate all the phases of staff development in which they participated. Four attended half-day orientations. Five attended Title I education institutes (week-long intensive instructional periods), and three attended follow-up seminars and workshops.

The respondents were asked to describe the focus of the staff development program activities. They were given eight items and asked to check all that applied. Four checked detecting, minimizing and/or eliminating non-educational impediments. Three described the focus as understanding the developmental problems of students and techniques of interviewing. One described the programs as focusing on carrying on one-to-one relationships with clients and staff and effective use of community resources.

The psychologists were asked to indicate all areas in which they felt a personal need for improvement in order to be more effective in the Title I Programs.

The results are listed below:

AREA	NUMBER NEEDING IMPROVEMENT
Detecting and minimizing and/or eliminating non-educational impediments	1
Understanding the developmental problems of students	1
Techniques of Interviewing	1
Carrying on one-to-one relationships with clients and staff	2
Conducting children and parent groups	1
Developing interpersonal relationships	1
Case recording (confidential report writing)	1
Effective use of Community Resources	2

The clinical psychologists as a group did not find staff development activities particularly helpful. Three indicated it was not very effective, one found it effective, and one found it quite effective.

JOB SATISFACTION

Asked to list the things they liked most about their Title I experiences, three of the psychologists specified freedom to exercise professional judgment. Two respondents specified working with the Pupil Personnel Services team was especially rewarding, and one singled out helping students with behavior and learning problems.

Major problem areas identified included poor program administration (noted by four of the six psychologists), too many schools to service, and lack of materials to work with.

Similarly, the least liked experience of four of the psychologists was the size of the caseloads; for the other two, it was poor organization and administration.

RECOMMENDATIONS

Clinical Psychologists and the Federal City College evaluation team jointly recommend:

1. That the size of the component be increased to reduce the caseload per clinical psychologist.

2. That more emphasis be placed on developing prescriptive programs.

3. That clinical psychologists have input into the organization planning and administration of this component.

4. That staff development opportunities be increased for all clinical psychologists.

5. That the focus of the staff development program be redefined to include (a.) Availability and effective use of community resources. (b.) Workshops for developing prescriptive programs that deal specifically with attendance problems, emotional problems, and the evaluation of pupil progress.

6. That guidelines for assessment and evaluation of pupil progress be developed jointly with other members of the Pupil Personnel Services Team.

JOINT CONCLUSIONS AND RECOMMENDATIONS

While each category of Pupil Personnel Services personnel has its special concerns, certain findings seem applicable to all. The following conclusions and recommendations are drawn from all the separate self-assessments:

1. Late identification of Title I students delays provision of needed supportive services. Early identification should be accomplished.

2. Caseloads for Pupil Personnel Services staff are generally much too large to permit each child or parent to receive enough help for maximum impact. Present over-staffing leads to crisis response instead of crisis prevention. If funds cannot be increased, a smaller number of students should be served.

3. Communication and understanding of roles between Pupil Personnel Services personnel and school staff, and between these groups and the Title I office, are limited. An orientation session early in the school year is needed to provide role clarification and set up communication channels, and administrative procedures should be developed which further encourage regular communication among all the groups.

4. Staff development is of limited utility as presently constituted, and should be revised and expanded.

B. TITLE I STAFF ASSISTANTS

1. Summary

The Title I Staff Assistant position was developed for FY 73 to provide a needed link between Title I Central Administration and Title I school personnel. Staff Assistants are to assist in a wide range of instructional and administrative tasks. An evaluation of their performance suggests that the Staff Assistants are carrying out the functions identified for the in the Plan of Operation for FY 1973, but that they operate under several constraints. Their roles are not wholly defined and therefore they face some problems of acceptance from classroom teachers principals, and other personnel. They face problems in obtaining needed materials and supplies due to inefficiencies in the central distribution system. In some cases, they are utilized inappropriately by school personnel. Finally, most Staff Assistants are assigned to two schools; travel time and expenses required to service both schools constitute a serious difficulty for many of the Staff Assistants.

2. Component Objectives

The Staff Assistant position was added to the D. C. Public Schools Title I program in order to provide a necessary link between local Title I administration and the Title I school principals, teachers, parents, and students. The stated objective of the component is to provide to the Title I school and the Title I classroom teacher a variety of support services related to instruction, organization and management of services at the local school level. Specifically, Title I Staff Assistants are to perform required tasks involving:

- Instruction;
- Obtaining substitutes;
- Assisting with workshops or special projects;
- Providing liaison between the classroom teacher and resource teachers plus the Parent Coordinator;
- Assisting in cultural enrichment activities;
- Handling materials;
- Handling requisitions;
- Maintaining contact with the "resource bank";
- Preparing and organizing reports;
- Clerical support services such as duplicating.

3. Component Structure and Scope

Title I Staff Assistants are paraprofessionals who were added to the Title I program in FY 1973 in order to take over some of the duties previously assigned to instructional coordinators, principals, and classroom teachers. They serve an administrative function as well as assisting in some instructional activities. Serving as general resource assistants to classroom teachers, they are assigned to one or two Title I schools, depending upon the number of Title I classrooms in each. There was one Staff Assistant for every 600 identified Title I students.

The FY 73 budget provided funds for 46 staff assistants at the GS-6 level. Personnel qualifications were to include:

- A minimum of two years of college work (60 semester hours);
- At least one year of employment in the D. C. Public Schools;
- Clerical skills (typing, filing, etc.).

There were actually 37 Staff Assistants hired; eight were assigned to one school each and 29 to two schools each.

4. Evaluation Methodology

An assessment was made of the extent of involvement of the Title I Staff Assistants in instructional activities, in-service training, and program administration. All 37 Staff Assistants employed by the Title I program at the time of the evaluation were surveyed through a semi-structured questionnaire. Findings for staff development activities are reported in the separate section assessing that component of Title I programming; remaining findings are presented below.

The questionnaire used included 44 items: 4 biographical questions; 34 forced-choice, closed-ended questions concerning activities and involvement related to Staff Assistant objectives and duties stated in the Plan of Operations; and 6 open-ended questions concerning overall assessment of the component from the Program Assistant's own perspective.

Copies of the instrument were delivered to all Staff Assistants by evaluation team members and then collected two weeks later. At this time, informal interviews were held with respondents. Thirty-five questionnaires were returned at least partially completed. Data were first analyzed through frequency distributions providing percentages of responses in each response category of closed-ended questions. Both frequency distributions and content analysis were used to analyze the open-ended questions.

5. Findings and Analysis

Questionnaire responses indicate that most Staff Assistants are women; while 14.3 percent did not specify their sex, nearly 87 percent of those who did were women. Although the Plan of Operation for the Title I program specifies that all Staff Assistants should have two years of college, 34 percent reported that they had completed high school only; another six percent had completed just one year of college. A quarter of the respondents had completed the required two years of college, while the rest (35 percent) had finished three years or more. Fifteen percent reported five or six years of college and presumably held advanced degrees. Respondents had generally been employed by the D. C. Public Schools considerably more than the required one year; the mean was 4.3 years and the majority had been so employed for five years.

Staff Assistants were asked to indicate the extent of their involvement in instructional activities; responses are shown in Table 4.11.

Responses indicate that Staff Assistants typically do perform frequently the specific instructional tasks outlined for them in the Plan of Operation.

Staff Assistants were also asked about their administrative tasks.

TABLE 4.11 STAFF ASSISTANT INVOLVEMENT IN RELATED INSTRUCTIONAL ACTIVITIES

	Never	Seldom	Frequently	Always
1. Participated in related instructional activities	5%	18%	49%	28%
2. Assisted with in-service training activities	9%	17%	45%	29%
3. Assisted with extended Services at the local school level		19%	47%	34%
4. Made contacts or arranged for trips planned by teacher	4%	4%	29%	63%
5. Served as substitute for teachers		66%	31%	3%
6. Duplicated, distributed materials and operated classroom materials		10%	52%	38%
7. Acquired substitute for teachers	6%	6%	34%	54%

(N=37)

They reported performing the following functions:

- Information dissemination and related communications:
  - Distributing and collecting bulletins of information from Title I teachers;
  - Organizing and summarizing information from responses to bulletins;
  - Arranging sites for school events and performances;
  - Maintaining contact with the Resource Bank for loaned materials for teachers;
  - Securing substitutes for teachers.
- Ordering, Liaison, and Record-Keeping:
  - Ordering and disposing of supplies and equipment;
  - Collecting forms for books, materials, etc.;
  - Classifying and recording types of supplies, materials and equipment.

Fifty-eight percent of the Staff Assistants reported that they were "always" involved in information dissemination; 49 percent reported they were "always" involved in ordering/liaison activities; and 77 percent said they were "always involved in record keeping activities within the classrooms for which they were responsible.

Further data analysis suggest that during a typical day, a Staff Assistant spends about 65 percent of his time in record-keeping activities, 45 percent in liaison and ordering activities, and 20 percent in information dissemination and related activities.

Staff Assistants were asked about their participation in staff development activities. All Staff Assistants reported attending half-day orientation sessions, 89 percent at the Malcolm Scates Building, 8 percent at Cleveland Elementary School, and 2.9 percent at Moten

Elementary School. The second phase of training was a week-long, intensive instructional period called a Title I Educational Institute. Only 11.4 percent of the Staff Assistants reported attending such an institute in FY 73. Phase three of in-service staff development involved follow-up workshops and/or seminars. Seventy-four percent of the respondents reported attending follow-up workshops at some location; 51 percent went to workshops at the Malcolm Scates Building.

When asked to describe the content of the in-service staff development activities, Staff Assistants responded as follows:

Humanistic Education Techniques----------------------60%
Psychological Factors in Poverty -------------------11%
Educational Methodology ----------------------------40%

Some respondents listed more than one category; 11.4% indicated that the content could not be described as any of the stated categories.

The Staff Assistants were asked to evaluate the effectiveness and usefulness of the in-service training they received. The training was considered very effective by 51 percent and not very effective by 34 percent. Usefulness of specific staff development activities was indicated as shown below:

TABLE 4.12 USEFULNESS OF STAFF DEVELOPMENT ACTIVITIES TO PROGRAM ASSISTANT

Activities	Percentage Participated	Percentage who Responded No Help	Some Help	Great Help
On the job training	40%		29%	71%
Participation in Workshops conferences & seminars	83%		48%	52%
Discussion on Methods of dealing with specific problem	87%		59%	41%

(N=37)

An adequate assessment of the in-service staff development program necessitated determining the Program Assistants' awareness of the overall purposes of the staff development program. Program purposes as perceived and reported by the respondents are shown below, in decreasing order of importance:

1. To provide participants with specific knowledge of the purposes, intent and methods of operation of the D.C. Schools Title I Program.

2. To provide knowledge regarding federal quidelines.

3. To identify participants' strengths and weaknesses in order to prepare them for successful participation in the instruction of Title I students.

To complete the programmatic questions, Staff Assistants were asked to indicate the three major problems they encountered in doing their jobs. Table 4.13 lists these responses, along with the percentages of respondents reporting each as the first, second, or third major problem encountered. As the table shows, the most generally felt problems related to lack of communication within the Title I School and to problems of materials distribution. Since Staff Assignments had major responsibilities related to communications and handling of materials, they were especially likely to identify existing problems in these areas.

TABLE 4.13 MAJOR PROGRAMMATIC PROBLEMS

Problem	1st	2nd	3rd	Total
1. No problem/No response	6%			
2. Lack of Communication within School.	16%	37%	30%	83%
3. Lack of equipment, supplies & materials (includes late distribution and poor distribution process).	23%	27%	30%	80%
4. Lack of acceptance or recognition of person and/or position; each of co-operation.	29%	18%	20%	67%
5. Lack of communication within Title I Office.	26%	18%	20%	64%
(N=37)				

Staff Assistants were asked to specify the three things they liked most and the three they liked least about their FY 73 experiences in the Title I program. Most frequently stated positive experiences were working with teachers and seeing students progress. Also listed (and ordered below in descending response frequency) were working with students and their parents, working in cultural enrichment activities provided for students, and relating to students and to their parents.

When asked about their least liked experiences, Staff Assistants most often specified the following problems:

- Lack of acceptance by school personnel;
- Difficulties of traveling between two schools without adequate travel time;

- Lack of reimbursement of travel expenses for between school traveling;
- Transportation problems due to inadequate public transportation;
- Inadequate materials and supplies;
- Inadequate communication from the Title I Central Administration office;
- Problems with program organization (supervision, distribution of checks, etc.).

As the above list shows, Staff Assistants who had to cover two Title I schools typically found the travel time, mode, and cost a serious problem and major annoyance, which they felt detracted from their ability to provide needed services to the Title I program.

Personnel interviews conducted with a sample of Staff Assistants provided additional information, particularly concerning program problems. There was concern over the lack of coordination provided between the Title I office and the local Title I schools (See Central Administration component evaluation for a discussion of the inadequate staffing which appears to contribute to this problem). A more personal concern involved the lack of specific definition of Staff Assistant responsibilities, and a related lack of full acceptance by some personnel. As one Staff Assistant put it, "The effectiveness of the Staff Assistant rests upon her job description being defined clearly to all levels of people with whom she must work." Staff Assistants seemed to view themselves as "professional" (as noted previously, some 35 percent had completed at least three years of college, and some had advanced degrees) and important. Some noted poor or improp[illegible]ilization of their skills when they were required to man the switchboard all day in the absence of the school clerk, sent on errands not related to Title I business, or not included in staff meetings involving activities in which they would be expected to participate. Finally, half of the interviewers reported a need for the Title I office to provide equipment, supplies, and materials more quickly for use when initially needed; they felt this was a major source of disorganization and confusion.

The questionnaire results, combined with informal interviews, suggest that the Staff Assistants are carrying out their prescribed duties. However, they also are apparently carrying out some activities not properly assigned to them. For example, 31 percent reported serving regularly as substitute teachers, and many reported in the interviews that they had been assigned to non-Title I business at times.

6. Recommendations

The following recommendations were made by the Staff Assistants themselves and endorsed by the evaluation team, or developed by the evaluators based on the questionnaire and interview results.

1. The role of the Staff Assistant should be clarified to all Title I and school personnel. This can be accomplished at least partially through a workshop with a role clarification emphasis held at the beginning of the year for Staff Assistants, Title I teachers and principals, educational aides, and Parent Volunteer Corps members.

2. A more efficient administrative and management system is needed, particularly with regard to the ordering and distribution of materials and supplies.

3. Efforts should be made to improve communications between the Title I office and individual Title I schools. The Staff Assistant is a logical choice to serve as the communications link, provided full information is provided to the Staff Assistant and his role is redefined to include specific responsibility in this area.

4. Funds should be earmarked for travel reimbursement for Staff Assistants who cover two schools or must travel to the Title I central office regularly. In addition, travel time should be built into the Staff Assistant's schedule when two schools are covered.

5. A clearly defined system for securing substitute teachers should be implemented, to eliminate having Staff Assistants serve as substitutes. The question of college training and preparation for substitute teaching is important both legally and programmatically; one-third of all Staff Assistants have no college training (although component guidelines require two years of college).

6. To minimize travel problems and increase the available time for communication and administrative as well as instructional functions, it would be desirable to provide one Staff Assistant for every Title I school.

7. A career ladder for Staff Assistants relative to educational aides and teachers should be provided. To encourage mobility, and professional growth, specific decision-making responsibilities should be delegated to the Staff Assistants.

8. Staff Assistants should be involved in periodic meetings involving principals and teachers, both as participants and as individuals seeking new knowledge and experience to improve their job performance.

C. PARENT VOLUNTEER CORPS

1. Summary

Based on the responses of 100 members of the Parent Volunteer Corps, it appears that the Corps has been an effective Title I component. Nearly all parents believe they have benefited from the program; they have both received training and had the opportunity to use their skills in a school situation and with their own children. Most complaints about the program involve a desire for a higher level of participation, for longer hours and over the full school year.

2. Component Objectives

The Parent Volunteer Corps has no formally stated objectives in the Plan of Operation for FY 1973. However, objectives can be inferred directly from the following Plan of Operations narrative:

> "Each school will have a Skill Workshop Day for every other week. At this time the parents will come together with the Instructional Coordinator to evaluate the skills they have seen. Following the evaluation period, learning devices will be made showing parents how to further the learning of their children. The devices will be related to the skills that they have observed. They will be used in the classrooms with small groups of children and then taken home to further the learning of their children."

In addition, objectives for the Parent Volunteer Corps can be inferred from the Staff Development component; the specified goal of Staff Development for parents is "to train parents to provide maximum supportive assistance to the Title I Comprehensive Program." Specific instructional objectives are listed, although they relate to the training effort rather than to "outcome" in most cases. These objectives emphasize introducing parents to the "field of child development and guidance" and helping them "to understand children by observing their behavior in both home and group situations." Specific teaching techniques are to be taught, to prepare parents for participating in the instruction of Title I students.

Based on this limited information, objectives of the Parent Volunteer Corps might be considered to include:

- Preparing parents for participation in the instruction of their and other Title I children;
- Utilizing parents, in the classroom and after school, to help children learn.

3. Component Structure and Scope

The Plan of Operation called for 500 parents to serve in the Title I Parent Volunteer Corps, with the number of parents from each school determined on the basis of the size of the identified Title I population. Members of the Volunteer Corps were to work for five to ten hours per week, during or after regular school hours, as paid assistants. They were permitted to work on a revolving basis in Title I classrooms for from nine weeks to one semester, or to provide tutorial services to individual students or small groups in after-school Homework Centers. Stipends were to be $1.90 per hour. Parent Volunteers were to obtain training through the Staff Development component, to increase their capability to provide assistance in the school and in the home.

4. Evaluation Methodology

Evaluation of the Parent Volunteer Corps was carried out through the administration of a structured and semi-structured questionnaire consisting of 20 items to a random sample of 100 Parent Volunteers. The sample was drawn from an actual Parent Volunteer Corps of 200 (not the projected 500). Sampling was based on Title I schools and was carried out after they were stratified by level (elementary or junior high school) and participation in the Competitive Reading Partnership (CRP), involving Random House, McGraw-Hill, and D. C. Health. This second stratification was used to permit comparisons of data from the Parent Volunteers with findings from questionnaires administered to CRP classroom and resource teachers.

Evaluation was based upon questions designed to determine the extent to which Parent Volunteers were actually providing instructional support and receiving Staff Development training as projected.

The questionnaire was delivered to the sample schools by the evaluation team and copies were distributed to the parents by the Title I Program Assistant for self-administration. Completed forms were collected one week later. Data were tabulated, with frequency distributions provided, with percentages for closed-ended questions; content analysis was used to analyze the open-ended questions.

5. Findings and Analysis

Parent Volunteers were asked about their work with the schools. Most reported that they worked during regular school hours; 49 percent said they worked with individual children, 46 percent that they worked with small groups. A few (five percent) worked after regular school hours in Homework Centers. Nearly all those surveyed (97 percent) reported they were paid for their work, and 75 percent felt that the $1.90 per hour was adequate compensation. While 87 percent of the parents said they worked between five and ten hours a week as the Plan of Operation specified, a few (three percent) worked less than five hours, and some (ten percent) worked more.

Since a major aspect of Parent Volunteer activities was to be staff training, parents were asked to agree or disagree with statements concerning whether they had received training in the areas specified in the Plan of Operation. As the Table 4.14 shows, more than half the respondents agreed that they had received training or information in seven of the ten specified activities.

TABLE 4.14 PERCENT OF PARENT VOLUNTEERS WHO AGREED OR DISAGREED ABOUT RECEIVING TRAINING IN TEN PROGRAM AREAS

Program Area	Agree	Disagree	Neutral or No Opinion	No Response
Preparation of Instructional Aids	51	23	17	9
Motivating Pupils	55	22	15	8
Assisting Children with Learning Activities	65	20	8	7
Teaching Math	47	28	15	10
Teaching Reading	40	30	22	8
Observing Child Behavior	44	26	19	11
Child Development	74	13	8	5
Operation of Title I	63	9	23	5
Federal Guidelines	63	10	19	5
Instructional Skills	69	18	6	7

(N=100)

As the table shows, nearly three-fourths (74 percent) of parents agreed that they had received training in child development, and more than two-thirds (69 percent) reported training in instructional skills. In only three categories did less than half the parents agree that training had been received: teaching math (47 percent), observing child behavior (44 percent), and teaching reading (40 percent). However, even in these three areas, no more than 30 percent of respondents specifically disagreed -- at least an equal number were neutral or gave no response.

According to the Title I Plan of Operation, an essential part of the Parent Volunteer Corps effort was the biweekly skills workshop. Just over half the parents (51 percent) reported attending these skill workshops every two to three weeks. Another 22 percent said they attended them every week, and an equal proportion said they attended them just once a month. Thus it appears that workshops were held for parents as planned, and most parents took advantage of the opportunity to attend them.

The Plan of Operation stated that parents would meet with the Instructional Coordinator following the workshops, to evaluate the skills observed. They would then make instructional devices, try them with children at the Homework Centers, and be able to take them home for use with their own children. Parents were therefore asked whether they had made such learning devices; 59 percent said they had; and 17 percent reported taking them home.

When asked to evaluate their training, more than 70 percent viewed it as adequate or better; only 12 percent thought it inadequate. A large majority of ten parents (82 percent) reported that the training and experience they received as volunteers were "very helpful" to them in helping their own children with their school work. Not a single parent evaluated the experience and training as being of "little help" or "not helpful." Asked to evaluate their overall experience as members of the Corps, 83 percent reported being "very satisfied" and 12 percent said they were fairly satisfied.

Parents were asked to specify their three most significant experiences as members of the Volunteer Corps. The overwhelming majority of parents found most significant their participation in the educational process; 95 percent considered participation in the education of their and other children in and out of the classroom to be their most significant experience. They mentioned as especially important such experiences as having the opportunity to observe the expression of a child who has grasped a word or idea, being asked for assistance by a child, teaching their own children with the techniques acquired in the skills workshops, being accepted by teachers as a part of the instructional team, being respected by local school children, seeing students progress and also attending parent meetings.

The parents felt that such experiences gave them a better understanding of how a school functions on a daily basis a feeling of being helpful and needed, a chance to establish positive relationships with school personnel, and the opportunity to gain a better understanding of child development. Many similar comments were made.

The opportunity to establish special relationships with children was highly valued. Parents pointed to relationships characterized by respect, trust, and sincerity, One parent volunteer reported being able to convince a group of Title I children not to commit an act of vandalism.

The opportunity for participation in the educational process was mentioned as important in many ways. Parents often had no previous opportunity to view their or other children in a classroom situation. Now they were part of the instructional process, helping to make educational decisions, learning about the reasons for homework assignments, and being able to function effectively in the classroom in the absence of the teacher because of the cooperation of the children. They also noticed changes in children's attitudes after they were helped by parents.

A small group of parents (five percent) reported that their most significant experiences were negative. They indicated that some children misbehaved, were not interested in what their teachers said, and used curse words. However, these comments related to the school situation -- primarily to the behavior of the children -- and not to the way in which the Parent Volunteer Program was handled.

When asked to describe the three things they liked least about their experiences, the most frequent responses involved the following concerns:

- Working hours for the parent volunteers were considered too short to permit their helping children as much as they believed they could (81 percent);
- There were not enough skill workshops to provide the skills they needed (79 percent);
- Not enough parents were participating in the Corps (37 percent).

Less frequently specified complaints included not being able to work with children on an individualized basis, the need for better workshops and more materials with which to work, need for the program to last longer, not enough reading and math workshops (it should be recalled that fewer than half the parents questioned said they had received training in teaching reading and math), and inadequate description of duties and responsibilities of Corps members.

As the discussion of findings suggest, it appears that the Parent Volunteer Corps is meeting its training and parent activity goals and that participation in the component is highly valued by the parents.

6. Recommendations

The parents themselves offered many recommendations for strengthening the program. Those considered appropriate are presented here, along with those developed by the evaluation team.

1. The Parent Volunteer Corps program should operate for the entire school year.

2. The number of hours parents are allowed to work should be increased.

3. The size of the Corps should be increased; parents feel there should be a special effort to encourage younger parents to participate.

4. More skill workshops should be held, to the extent feasible, and there should be an emphasis upon reading and mathematics in conjunction with the Title I emphasis on improving reading and math skills.

5. Improved materials should be made available to parents, and opportunities for working with individual and small groups of children should be increased.

6. Parents might profitably be afforded more opportunity for involvement in the organization of the program.

V.

PERFORMANCE DATA

V. Performance Data

A. Summary

Reading instruction for Title I students is provided through a Competitive Partnership Program. Three publishing companies, D.C. Heath, McGraw Hill, and Random House are in competition to provide the most effective instructional materials in reading and mathematics for D.C. Public Schools which are to be developed within a three-year period. An analysis of reading program effectiveness, including consideration of amount of supplemental instruction found, surprisingly, higher achievement for students who receive instruction in non-partnership materials. A variety of methodological or program factors, some of which are indicated in the text, might explain this unexpected result.

A cost-effectiveness evaluation was undertaken of the Competitive Reading Partnership to determine the relative effectiveness of three different types of reading programs in the Title I program of the District of Columbia. Cost differences among the three programs were taken into account in an effort to determine which program led to the greatest student gains per dollar spent. Other parts of the Title I program evaluation provide an indication of how classroom and resource teachers in the schools feel about the various materials. This facet of the evaluation is concerned with the relative effectiveness of the three different reading programs as measured through student achievement scores, and their comparative costs.

D.C. Heath Company was found to provide the most cost-effective materials; classes using the D.C. Heath materials showed the greatest average gains in reading scores at the lowest per pupil cost.

B. AN ANALYSIS OF READING AND MATHEMATICS STANDARDS

1. Overview

Analysis was carried out of reading, mathematics, and standardized achievement test scores of students in the three Competitive Reading Partnership groups (D.C. Heath, Random House, and McGraw-Hill) and students in the non-partnership group. This analysis provided a determination of whether: (1) there was a difference in student gains for CRP versus non-partnership students; and (2) whether students using particular company materials showed differences in gains.

2. Standardized Achievement Tests Used

Standardized tests were administered twice to pupils in Title I schools during the 1972-1973 school year, October 1972 and May 1973. This made possible a pretest/posttest comparison for some students, with the exception of the first graders. The tests administered were as follows:

Grade	Test Administered	Date Administered Oct. 1972	 May 1973
1	Metropolitan Readiness Test	Form B	--------
1	California Achievement Test	------	Form A, Level 1
2	California Achievement Test	Form A (Sept. 72)	Form B
3	California Test of Basic Skills	Form R/ Level 1	Form Q/ Level 1

Only the May 1973 test scores for first-grade pupils were included in this report, since the test administered to this group in October 1972 was dissimilar from the test administered in May 1973. For the second and third grades, only the scores of those students who could be matched on pretest and posttest were analyzed.

3. Grade One Scores

PURPOSE

The purpose of the analysis was to determine whether there were significant differences in mean grade-equivalent reading and math test scores for the CRP and non-partnership groups on each reading subtest (vocabulary and comprehension) and the reading total. A significant difference was defined as one at the .05 significance level. Null hypotheses were therefore developed:

1. There is no significant difference among the Reading Vocabulary subtest scores of the Title I partnership and the non-partnership groups.

2. There is no significant difference among the Reading Comprehension subtest scores of partnership and non-partnership groups.

3. There is no significant difference among the Reading Total scores of partnership and non-partnership groups.

ANALYSIS

The one-way analysis of variance statistic was used to analyze the May 1973 test scores for Title I identified and non-identified first grade pupils. The analysis of covariance test statistic was used to analyze matched pretest and posttest scores for Title I identified and non-identified pupils in grades two and three.

FINDINGS: READING TEST SCORES

Table 5.8 shows the mean grade-equivalent reading test scores of Title I identified and non-identified pupils in grade one.

TABLE 5.8 MAY 1973 MEAN GRADE-EQUIVALENT READING SCORES FOR GRADE 1

Subtest	Group					
	D.C. Heath (n=239)	Random House (n=303)	McGraw-Hill (n=276	Non-Partnership (n=207)	F-ratio	
Reading Vocabulary	1.5787	2.0224	1.9420	1.6464	17.0544	(1.7)*
Reading Comprehension	1.6381	1.9277	1.9322	1.7237	6.7702	(1.7)*
Reading Total	1.4933	1.9370	1.8848	1.5411	19.5285	(1.7)*

*Large City Norms

Subtest scores were first analyzed, and the differences between achievement levels for each group and the large-city norm (1.7) calculated. For the Reading Vocabulary subtest, achievement levels are shown below in descending order, with calculation of the difference between that level and the large-city norm.

Program Group	Difference Between Group and Norm Score
Random House	+ .3224
McGraw-Hill	+ .2420
Non-Partnership	- .0536
D.C. Heath	- .1213

Significant differences were found among the Reading Vocabulary scores (P_3, 1021, $\geq .05$), and the null hypothesis was rejected. Duncan's New Multiple Range Test was used to make a pairwise analysis of differences among the means for the various program groups. The formula used and the steps involved in this analysis are demonstrated below.

The test was used repeatedly in the analysis of mean scores in this section of the report; following this example, results are presented without the formula. The formula used was:

$$(\bar{x}_a - \bar{x}_b \sqrt{\frac{2na\ nb}{na + nb}} > SZ_p,\ n_2$$

where $\bar{x}_a$ = mean 1

$\bar{x}_b$ = mean 2

n_a = number of replications for $\bar{x}a$

n_b = number of replications for $\bar{x}b$

S = standard error of mean

Z_p = a given table value

n_2 = degrees of freedom associated with error term

$R'_p = SZ_p,\ n_2$

Computation was as follows:

(a) Reading Vocabulary means ranked in order and number of replications:

	DCH(1)	NP(4)	MH(3)	RH(2)
$\bar{x}$	1.5787	1.6464	1.9420	2.0224
n	239	207	276	303

(b) Analysis of Variance of Reading Vocabulary Scores:

	SS	DF	MS	F-ratio
Between Groups	36.6861	3	12.2287	17.055
Within Groups	732.1000	1021	.7170	
Total	768.7857	1024		

(c) $\sqrt{.7170} = .8468$

(d) Significant Studentized Ranges for a 5% Duncan Multiple Range Test:

	NP	MH	RH
P /	2	3	4
n_2 = 1021	2.77	2.92	3.02

(e) Appropriate Significant Range Factor

	NP	MH	RH
P:	(2)	(3)	(4)
$R^1{}_p$	2.3456	2.4727	2.5573

(f) Test:

In order for $(\bar{x}Rh - \bar{x}dch)$ to be significant

$$(xrh - xdch)\sqrt{\frac{2(303)\ (239)}{(303) - (239)}}$$

must exceed R'_4 - 2.5573

$$.4437 \times 16.3469 - 7.5231 \quad R'_4$$

therefore, Xrh - Xdch is significant.

Likewise, $\overline{x}rh - \overline{x}np > R'_4$

$\overline{x}rh - \overline{x}mh < R'_4$

$\overline{x}mh - \overline{x}dch > R'_3$

$\overline{x}mh - \overline{x}np \not> R'_3$

$\overline{x}np - \overline{x}dch < R'_2$

The test shows that significant differences exist between the two program groups with the highest mean Reading Vocabulary subtest scores (Random House and McGraw-Hill) and the two with the lowest mean subtest scores (Non-Partnership and D.C. Heath); significant differences do not exist between the two highest groups or between the two lowest groups. It was therefore concluded that Random House and McGraw-Hill program groups in the first grade had significantly better Reading Vocabulary subtest scores than D.C. Heath and non-partnership groups.

A similar analysis of the Reading Comprehension subtest found a slightly different ranking of program groups, as shown below with calculations of the difference between each group and the large-city norm:

Program Group	Difference Between Group and Norm Score
McGraw-Hill	+ 0.2322
Random House	+ 0.2277
Non-Partnership	+ 0.0237
D.C. Heath	- 0.0619

Significant differences were again found between the partnership and non-partnership scores (P_3, 1021, <.05), and the null hypothesis was rejected. Duncan's Multiple Range Test identified significant differences again between the two top-ranking groups (McGraw-Hill and Random House) and the two bottom-ranking groups (Non-Partnership and D.C. Heath), but not between the two top groups or between the two bottom groups. It was therefore concluded that first-grade pupils in the McGraw-Hill and Random House programs had significantly higher Reading Comprehension subtest scores than students in the non-partnership or D.C. Heath programs.

Similar results were found for Reading Total CAT scores. A comparison between Reading Total scores shows that Title I pupils in the Random House and McGraw-Hill partnership groups have scores above the large-city norms, while pupils in the D.C. Heath and non-partnership groups have scores below these norms. Differences between Reading Total scores and the large-city norm of 1.7 are as follows:

Program Group	Difference Between Group and Norm Score
Random House	+ 0.2380
McGraw-Hill	+ 0.1848
Non-Partnership	- 0.1589
D.C. Heath	- 0.2067

An analysis of variance of Reading Total scores was carried out:

	SS	DF	MS	F
Between Groups	40.3963	3	13.4654	19.5285
Within Groups	704.0050	1021	.6895	
Total	744.4013	1024		

The Reading Total mean scores for partnership and non-partnership groups were significantly different ($P_3, \quad 1021 > .05$). The null hypotheses of no significant difference among the reading total scores for partnership and non-partnership groups was therefore rejected.

Duncan's Multiple Range Test was used to analyze the Reading Total mean scores. Results showed no significant difference between the two groups with the highest mean scores, Random House and McGraw-Hill, or between the two groups with the lowest mean scores, the non-partnership and D.C. Heath groups. However, significant differences were found between all other groups. Thus it appears that Random House and McGraw-Hill programs showed the highest Reading Total achievement scores for Title I first-grade pupils, and that these programs had significantly better Reading Total achievement levels than either the non-partnership or the D.C. Heath programs.

4. Grades Two and Three Scores

PURPOSE

The purpose of this analysis was to analyze standardized test scores of second and third grade pupils in two basic skill areas: reading and mathematics, in order to determine whether or not there were significant differences in mean posttest scores among the Competitive Reading Partnership and Non-Partnership groups. A significant difference was one at the .05 confidence level. Null hypotheses were developed as follows:

1. There is no significant difference among the adjusted Reading Vocabulary means for partnership and non-partnership program groups.

2. There is no significant difference among the adjusted Reading Comprehension means for partnership and non-partnership program groups.

3. There is no significant difference among the adjusted Reading Total means for partnership and non-partnership program groups.

4. There is no significant difference among the adjusted Math Computation means for partnership and non-partnership program groups.

5. There is no significant difference among the adjusted Math Concept means for partnership and non-partnership program groups.

6. There is no significant difference among the adjusted Math Application means for partnership and non-partnership program groups.

7. There is no significant difference among adjusted Math Total means for partnership and non-partnership program groups.

ANALYSIS: STATISTICAL CONTROL

To obtain unbiased estimates of the effects that the Competitive Reading Partnership and Non-partnership programs had on the posttest Reading and Mathematics scores of second and third grade pupils, the ideal appraoch would have been to use experiemental controls to reduce the variability due to experimental error. However, experimental controls such as the random assignment of pupils to various programs were not administratively practical and were beyond the evaluator's control. Therefore, the approach used to reduce experimental error and obtain unbiased estimates of the effect of the partnership and non-partnership programs on the reading and math scores of the pupils involved the use of statistical control. This technique permitted the evaluator to remove some potential sources of bias from the reading and math pretest and post-test scores. Statistical control as used in this report refers to analysis of covariance, a technique appropriate for research situations involving intact groups, such as classes.

Through analysis of covariance, the posttest reading and math scores were adjusted to account for the differences in the pretest reading and math scores. The adjusted means provided better estimates of program (treatment) effects than the unadjusted means because potential error sources were removed by the adjustment.

FINDINGS: GRADE TWO

READING TEST SCORES

Analysis was carried out on Reading Vocabulary, Reading Comprehension, and Reading Total scores for second graders. Table 5.9 shows adjusted grade-equivalent and gain scores for each program group.

After Adjustment through covariate analysis, posttest grade-equivalent means showed no significant difference among treatment groups; the null hypothesis was accepted. Adjustments did change rankings for Reading Vocabulary scores; Random House ranked lowest in unadjusted posttest means but was second highest after adjustment. As the table shows, D.C. Heath program students showed the highest adjusteed gain score, nearly one grade-equivalent. For all CRP groups, the adjusted gain score was about nine months, as compared with eight months for the non-partnership pupils.

Table 5.10 shows Reading Comprehension scores for second graders in each group.

As the table shows, after adjustement, Random House pupils showed lower gains than students in any other group. Random House pupils

TABLE 5.9 GRADE TWO READING VOCABULARY SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (Grade Equivalent Years)[1]
D.C. Heath (N=204)	1.6882	2.6480	2.6568	0.9601
Random House (N=134)	1.3776	2.2962	2.6276	0.9410
McGraw-Hill (N=205)	1.7683	2.6834	2.6090	0.9124
Non-Partnership (N=120)	1.9450	2.7617	2.5038	0.8071

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[1] Abbreviated hereafter as GEY.

TABLE 5.10 GRADE TWO READING COMPREHENSION SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain (GEY)
D.C. Heath (N=204)	1.5324	2.2843	2.3535	0.6689
Random House (N=134)	1.5187	1.8381	1.9135	0.2289
McGraw-Hill (N=205)	1.7888	2.5489	2.5489	0.8593
Non-Partnership (N=120)	1.9508	2.5108	2.3899	0.7053

started the year with the lowest Reading Comprehension socres and ended with adjusted gains of only 2.3 months, as compared with 8.6 months for McGraw-Hill and about seven months for D.C. Heath and the non-partnership group. These differences were significant (P_3, 6587, $< .001$), and the null hypothesis was rejected. A pairwise comparison using Duncan's Multiple Range Test found differences between all programs except the middle two (D.C. Heath and the non-partnership group) to be significant. Thus pupils in the McGraw-Hill program did significantly better and pupils in the Random House program significantly worse than the other programs in terms of adjusted gains in Reading Comprehension during grade two.

Table 5.11 shows Reading Total scores for second graders in each reading group.

Achievement levels are shown below in another way, in descending order of adjusted means, with calculation of the difference between each achievement level and the large-city norm of 2.7.

Program Group	Difference Between Group and Norm Score (Mean)
D.C. Heath	- 0.1692
McGraw-Hill	- 0.1856
Random House	- 0.2910
Non-Partnership	- 0.2944

The figures show that pupils in the D.C. Heath and McGraw-Hill programs have adjusted mean grade-equivalent scores less than two months below the large-city norm, while Random House and non-partnership students have scores almost three months below this norm. However, all four groups of students rank below the large-city norm. On the other hand,

TABLE 5.11 GRADE TWO READING TOTAL SCORES

Program Groups	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath	1.5868	2.4819	2.5308 (2.7)[1]	0.8886 (0.7)[2]
Random House	1.3328	2.1358	2.4090 "	0.7667 "
McGraw-Hill	1.7459	2.6059	2.5144 "	0.8721 "
Non-Partnership	1.9050	2.6376	2.4056 "	0.7633 "

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[1] Grade-equivalent score based on large-city norm.

[2] Change in READING TOTAL based on large-city norm.

in all cases changes in reading scores were greater than the large-city norm, as shown below.

Program Group	Difference Between Group and Norm Score (Gain)
D.C. Heath	+ 0.1886
McGraw-Hill	+ 0.1721
Random House	+ 0.0667
Non-Partnership	+ 0.0633

As these figures show, all four groups showed adjusted gains above the large-city norms, and gains were greatest for D.C. Heath and McGraw-Hill students. However, differences in scores for the four program groups were not significant after adjustement; therefore, the null hypothesis was accepted. Thus the Reading Comprehension scores of all four groups are below large-city norms but gains are above these norms; there is no significant difference among CRP programs or between CRP and non-partnership groups in Reading Comprehension gains or achievement scores.

MATH TEST SCORES

Analysis was carred out on Math Computation, Math Concept, and Math Total scores for second graders in each reading group. While reading groups did not specifically provide training in mathematics, it is possible that gains in reading may affect other aspects of school achievement.

Table 5.12 shows adjusted Math Computation scores for the four reading program groups.

TABLE 5.12 GRADE TWO MATH COMPUTATION SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath	1.4083	2.4157	2.4066	1.0102
Random House	1.1650	1.8664	2.0429	0.6465
McGraw-Hill	1.4137	2.2463	2.2331	0.8368
Non-Partnership	1.6050	2.5575	2.3984	1.0020

The adjusted Math Computation scores showed significant differences among programs (F_3, 658, $<$ .001); the null hypothesis was therefore rejected. As the table shows, gains were greatest for D.C. Heath and non-partnership groups. Pupils in the Random House program progressed about six months during the school year, as compared with more than ten months for these highest ranking programs; they also had the lowest pretest mean scores. McGraw-Hill pupils gained a mean of a little more than eight months in Math Computation skills. The Duncan Multiple Range Test showed significant differences between all groupings except D.C. Heath and the non-partnership program group, the two programs showing the greatest (and very similar) gains.

Table 5.13 shows adjusted Math Concept scores.

Pupils in the D.C. Heath and Random House programs each showed a gain score of more than one grade-equivalent year. This is particularly impressive in the case of Random House students, who stared the year with the lowest pretest mean but ended with the second highest adjusted posttest mean. Pupils in the non-partnership and McGraw-Hill programs showed gains of about nine months. Thus all four program groups showed relatively good gains in math concept. There was no significant difference among scores for the different programs, and the null hypothesis was therefore accepted.

Table 5.14 shows adjusted Math Total scores for Grade Two.

TABLE 5.13 GRADE TWO MATH CONCEPT SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath	1.8044	2.9000	2.8586	1.0995
Random House	1.4836	2.5396	2.7913	1.0321
McGraw-Hill	1.7644	2.6430	2.6381	0.8790
Non-Partnership	1.9808	2.8992	2.6966	0.9375

TABLE 5.14 GRADE TWO MATH TOTAL SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath	1.6000	2.5530	2.5252	0.9653
Random House	1.2962	2.0858	2.2683	0.7085
McGraw-Hill	1.5590	2.3868	2.3874	0.8275
Non-Partnership	1.7875	2.6533	2.4957	0.9359

The large-city norm for Math Total scores is 2.7. Below is a rank ordering of programs with calculation of the difference between adjusted posttest mean score and the large-city norm.

Program Group	Difference Between Group and Norm Score
D.C. Heath	- 0.1748
Non-Partnership	- 0.2043
McGraw-Hill	- 0.3126
Random House	- 0.4317

As the calculations show, all four program groups were below large-city norms, with the D.C. Heath group less than two months below, the non-partnership group just over two months behind, McGraw-Hill three and Random House more than four months behind. However, two program groups, D.C. Heath and the non-partnership group, progressed more than nine months in terms of adjusted gain scores, and all four groups progressed more than seven months; thus while overall achievement levels are below large-city norms, gains are above them.

There were significant differences among the adjusted means for the four groups (P_3, 658 $>$ .01); the null hypothesis was therefore rejected. The Duncan Multiple Range Test showed significant differences between all pairs. Thus D.C. Heath students had significantly higher scores and gains than the other groups, while Random House students showed significantly lower scores and gains.

FINDINGS: GRADE THREE

READING TEST SCORES

Analysis was carried out on Reading Vocabulary, Reading Comprehension, and Reading Total scores for third graders, as for second graders.

Table 5.15 shows adjusted Reading Vocabulary scores.

As the table shows, non-partnership students gained well over a year in Reading Vocabulary skills, while D.C. Heath students ranked next highest with gains of about one year. McGraw-Hill students gained only about seven months and Random House students just four and one-half months. Interestingly, Random House students started out with the highest pretest mean, yet had the lowest adjusted posttest mean of any group.

The differences among the four adjusted mean scores were significant (P_3, 848, $>$.001); the null hypothesis was therefore rejected. A pairwise analysis of differences found significant differences between all possible pairs. Thus it appears that the four program groups had significantly different success in Reading Vocabulary, with one of the CRP groups, D.C. Heath, showing gains of more than one grade-equivalent year, but the non-partnership group showing the highest adjusted gain score and posttest mean.

Table 5.16 shows Reading Comprehension scores by program group.

As the table shows, the non-partnership group had the highest adjusted posttest mean and gain score, and was the only group with a gain score of more than seven months (the large-city norm). Random House showed the lowest gains -- less than four months -- while McGraw-Hill showed gains of nearly five months and D.C. Heath of about six months. Scores were significantly different (P_3 , 848, $>$ .001); the null hypothesis was therefore rejected. Using Duncan's pairwise comparisons, it was determined that all pairs were significantly different at the

TABLE 5.15 GRADE THREE READING VOCABULARY SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath (N=150)	2.2000	3.1946	3.1878	1.0038*
Random House (N=275)	2.2524	2.6627	2.6337	0.4497
McGraw-Hill (N=202)	2.0545	2.8192	2.8742	0.6901*
Non-Partnership (N=236)	2.2042	3.3424	3.3338	1.1498

* S.E. $\geq$ 1.0

TABLE 5.16 GRADE THREE READING COMPREHENSION SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath	2.2905	2.9027	2.9056	0.6106*
Random House	2.3340	2.7048	2.6795	0.3846
McGraw-Hill	2.0975	2.6540	2.7821	0.4872
Non-Partnership	2.4186	3.1475	3.0672	0.7723

* S.E. ≥ 1.0

.05 confidence level. Thus the non-partnership program showed significantly higher gains than the other program groups, and Random house showed significantly lower gains.

Table 5.17 shows Reading Total scores for the four groups.

The tables shows that only the non-partnership group had adjusted gain scores higher than the large-city norm, and none of the groups had adjusted posttest mean scores close to the large-city norm, all three CRP groups were at least nine months below it. CRP groups were below the large-city gain score norm by the amounts shown below:

Program Group	Difference Between Group and Large-City Norm
D.C. Heath	- 0.1332
McGraw-Hill	- 0.2666
Random House	- 0.4167

Random House, which also had the lowest adjusted posttest mean score, showed the smallest gains -- less than three months, only about one-third the gains of the non-partnership group. McGraw-Hill gains were more than four months, while D.C. Heath showed an adjusted gain score of just above five and one-half months. McGraw-Hill started the year with the lowest pretest score, and Random House with the second best pretest score.

The adjusted Reading Total scores were significantly different (P_3 , 848, $>$ .001), so the null hypothesis was rejected. Pairwise comparisons showed that all groups are significantly different. Thus the non-partnership group had significantly greater Reading Total gain scores than the three CRP groups, and Random House had significantly poorer gain scores than the other three groups.

TABLE 5.17 GRADE THREE READING TOTAL SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath	2.2358	2.8047	2.8050 (3.7)*	0.5688
Random House	2.2941	2.5635	2.5195 "	0.2833
McGraw-Hill	2.0540	2.5313	2.6695 "	0.4334
Non-Partnership	2.3229	3.1403	3.0745 "	0.8382

*Large City Norm

MATH TEST SCORES

Analysis was carried out on Math Computation, Math Concept, Math Application, and Math Total scores for third graders in each reading program group.

Table 5.18 shows adjusted Math Computation scores.

The highest adjusted posttest mean scores were found for D.C. Heath students, who also had the highest pretest mean and showed the greatest adjusted gain score -- 9.8 months. The lowest pretest, adjusted posttest, and adjusted gain scores were found for McGraw-Hill. The non-partnership group showed gains of 8.7 months, while Random House students gained 6.4 months. The null hypothesis was rejected since differences in adjusted means were found to be significant (p 3, 848, $>$ .001). A pairwise comparison showed significant differences between all pairs. Thus D.C. Heath Math Computation scores are significantly higher than the scores of the other three groups, and McGraw-Hill scores are significantly lower.

Table 5.19 shows scores for all groups in Math Concept.

As the tables shows, adjusted gain scores for Math Concept varied greatly, ranging from a low of 4.8 months for McGraw-Hill to a high of 10.2 months for D.C. Heath. Random House gains were nearly as low as those of McGraw-Hill, with 5.3 months, while non-partnership students gained 8.8 months. The two groups with the lowest adjusted gain scores also had the lowest pretest means.

Differences among adjusted posttest means were significant (P_3 , 848, .001); the null hypothesis was rejected. Pairwise comparisons showed significant differences between all pairs except Random House and McGraw-Hill. Thus D.C. Heath scores were significantly better than those for

TABLE 5.18 GRADE THREE MATH COMPUTATION SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath	2.3198	3.2892	3.0937	0.9758
Random House	2.0594	2.7041	2.7610	0.6431
McGraw-Hill	1.8798	2.2843	2.5160	0.3980
Non-Partnership	2.2589	3.1225	2.9854	0.8674

TABLE 5.19 GRADE THREE MATH CONCEPT SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath	2.0534	3.0601	2.8834	1.0218
Random House	1.8649	2.3926	2.3895	0.5279
McGraw-Hill	1.4687	1.9798	2.3418	0.4803
Non-Partnership	2.0670	2.9347	2.7455	0.8839

the other groups, while Random House and Mc-Graw-Hill had similarly low adjusted posttest mean and gain scores.

Table 5.20 shows scores for Math Application.

As the table demonstrates, the lowest gains were made by students in the McGraw-Hill and Random House programs, while the largest gains were made by D.C. Heath students. Non-partnership students ranked second in adjusted gain score, with nearly seven months, as compared with 8.3 months for D.C. Heath, four months for Random House, and just over three months for McGraw-Hill.

Differences among programs were found to be significant (P_3 , 848, > .001), and the null hypothesis was rejected. Pairwise comparisons showed significant differences between all pairs. Thus D.C. Heath students showed significantly better gains than pupils in the other three groups, while McGraw-Hill students showed significantly lower gains.

Table 5.21 shows Math Total scores for all three groups.

As the table shows, all four groups were far below the large-city norm for adjusted posttest mean scores. Differences between program group mean scores and the norm are as follows:

Program Group	Difference Between Group and Norm (Means)
D.C. Heath	- 0.7789
Non-Partnership	- 0.8470
Random House	- 1.0917
McGraw-Hill	- 1.3205

These figures indicate that McGraw-Hill and Random House students are more than one grade-euqivalent year behind large-city Math Total

TABLE 5.20 GRADE THREE MATH APPLICATION SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath	2.1250	2.9446	2.7750	0.8339
Random House	1.9332	2.3328	2.3402	0.3990
McGraw-Hill	1.6177	1.9505	2.2489	0.3077
Non-Partnership	2.1064	2.7856	2.6332	0.6920

TABLE 5.21 GRADE THREE MATH TOTAL SCORES

Program Group	Pretest Mean	Posttest Mean	Adjusted Posttest Mean	Adjusted Gain Score (GEY)
D.C. Heath	2.2344	2.1142	2.9211 (3.7)*	0.8670 (0.7)*
Random House	2.0266	2.5786	2.6083 "	0.5540 "
McGraw-Hill	1.7950	2.1015	2.3795 "	0.3252 "
Non-Partnership	2.1907	2.9920	2.8530 "	0.7987 "

*Large City Norm

achievement means, while D.C. Heath and non-partnership pupils are about eight months behind. However, two of the program groups have made gains above large-city norms, as shown below.

Program Group	Difference Between Group and Norm (Gains)
D.C. Heath	+ 0.1670
Non-Partnership	+ 0.0987
Random House	- 0.1460
McGraw-Hill	- 0.3748

Both D.C. Heath and the non-partnership group showed gains above large-city norms; the greatest gains were achieved by D.C. Heath, which also had the highest pretest and adjusted posttest mean scores.

The adjusted Math Total means for the four groups were significantly different; the null hypothesis was therefore rejected. Pairwise comparisons showed that differences between all possible pairs were significant. D.C. Heath students thus showed significantly greater gains and higher achievement in Math Total scores than other students, and non-partnership students scored better than students in the Random House and McGraw-Hill CRP groups. McGraw-Hill students showed significantly lower gains and posttest mean scores than the other three groups.

C. SUPPLEMENTARY READING SUB-STUDY

1. Methodology[1]

BACKGROUND

This study sought to determine the effectiveness of four alternative approaches to the teaching of reading within the classroom by the regular classroom teacher with or without the assistance of educational aides and/or parent volunteers. It also sought to determine the relative effectiveness of two levels of supplementary instruction by the reading resource teacher in her center in addition to the instruction provided by the classroom teacher. The sample consisted of those identified students from classrooms using the four reading approaches who actually received such supplemental instruction during the 1972-73 school year while they were in the third grade.

This section presents the rationale for covariance procedures and the following data: central tendency and dispersion of pretest, post-test, and adjusted mean raw and standard scores; statistical tests of hypotheses and post hoc experimentation of related differences between groups; and investigation of the differences.

The two hypotheses tested are:

1. that each of the new partnership programs has a greater effect on students' reading scores than the non-Partnership program has and
2. that the greater the amount of supplemental instruction, the greater the achievement in reading.

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[1] See volume II for sampling technique

RATIONALE FOR COVARIANCE

The program for Title I for 1972 - 73 was designed by the school system independent of any research or evaluation consideration. Consequently, this research was undertaken with reading groups already in existence. Because the reading groups and students receiving greater amounts of supplemental instruction may have differed initially in their reading achievement, analysis of covariance was used as the statistical test. The pretest score of students was treated as the covariate; the posttest score was the criterion variable.

When intact groups are the only research option, covariance should be used to statistically control for initial differences, in the present case, the pretest differences. Covariance increases the precision of the experiment by removing from the error term or unexplained variance as much variance as is explained by the relationship of the covariate to the dependent variable.

Of course, this procedure does not make the groups equivalent. There are any number of known and unknown variables that may be associated with the dependent variable, in this case, achievement scores. Randomization is the best procedure to attempt to make groups experimentally equivalent. Covariance, however, is an attempt to statistically control to the degree possible any variables that obviously affect final achievement scores.

2. Findings and Analysis

CENTRAL TENDENCY AND DISPERSION

In the pretest, posttest and adjusted posttest sections, the raw scores (the total number of correct responses a student makes) are presented first, followed by the standard scale scores.

THE PRETESTS

Although the data provided by the school system consisted of only large-city grade equivalents and percentiles, the latter were converted to raw scores by using conversion tables provided the school system by the test manufacturer (California Test Bureau, 1969). A second set of conversion tables supplied in the manuals for both forms R and Q were used to convert the derived raw scores to standard scale scores. The latter were based on the scores of the students from the norming populations fitted to a normal curve.

Figure 5.1 presents the pretest means on the Comprehensive Test of Basic Skills by reading programs and both levels of supplemental instruction. The eight raw score cell means range from 17.36 for the low supplemental instruction non-Partnership group to 22.60 for the same program's high supplemental instruction level. The standard scale score cell means (see Figure 5.2) range from 251.79, the non-Partnership low instruction group, to 289.40, the same program's high supplemental instruction level.

An analysis of variance test of the pretest means found no significant program, instructional level or interaction differences at a .05 alpha level, however, for either the raw or standard scores.

POSTTESTS

Figure 5.3 shows the posttest means for the reading programs and both levels of supplemental instruction. The raw score program means range from 23.11, the Random House Program, to 29.50 for the non-Partnership program. The standard score program (see Figure 5.4) means range from 275.57 to 301.04; the same programs represented the extreme

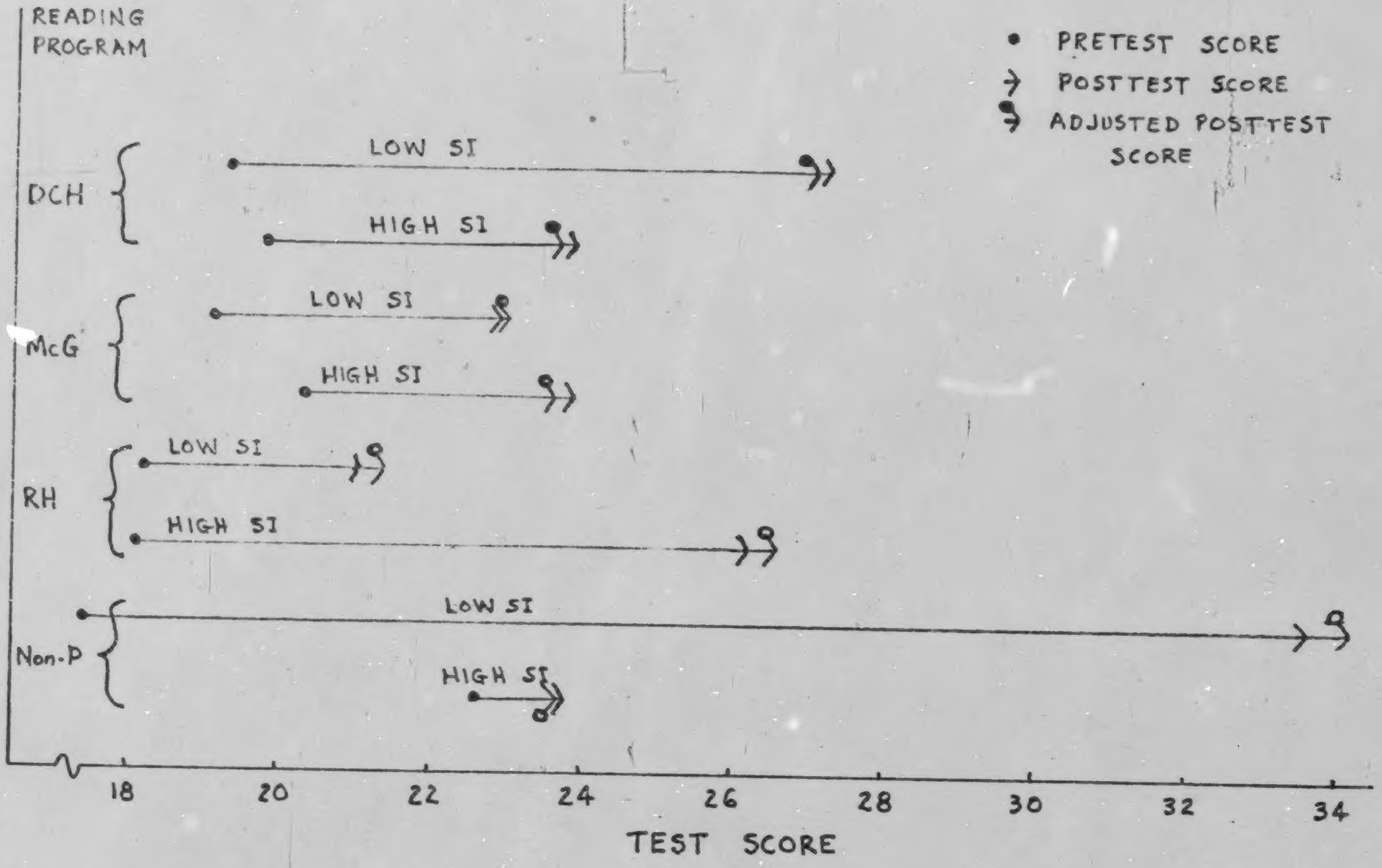


FIGURE 5.1 RAW SCORE PRETESTS, POSTTESTS, AND POSTTESTS ADJUSTED BY PRETESTS.

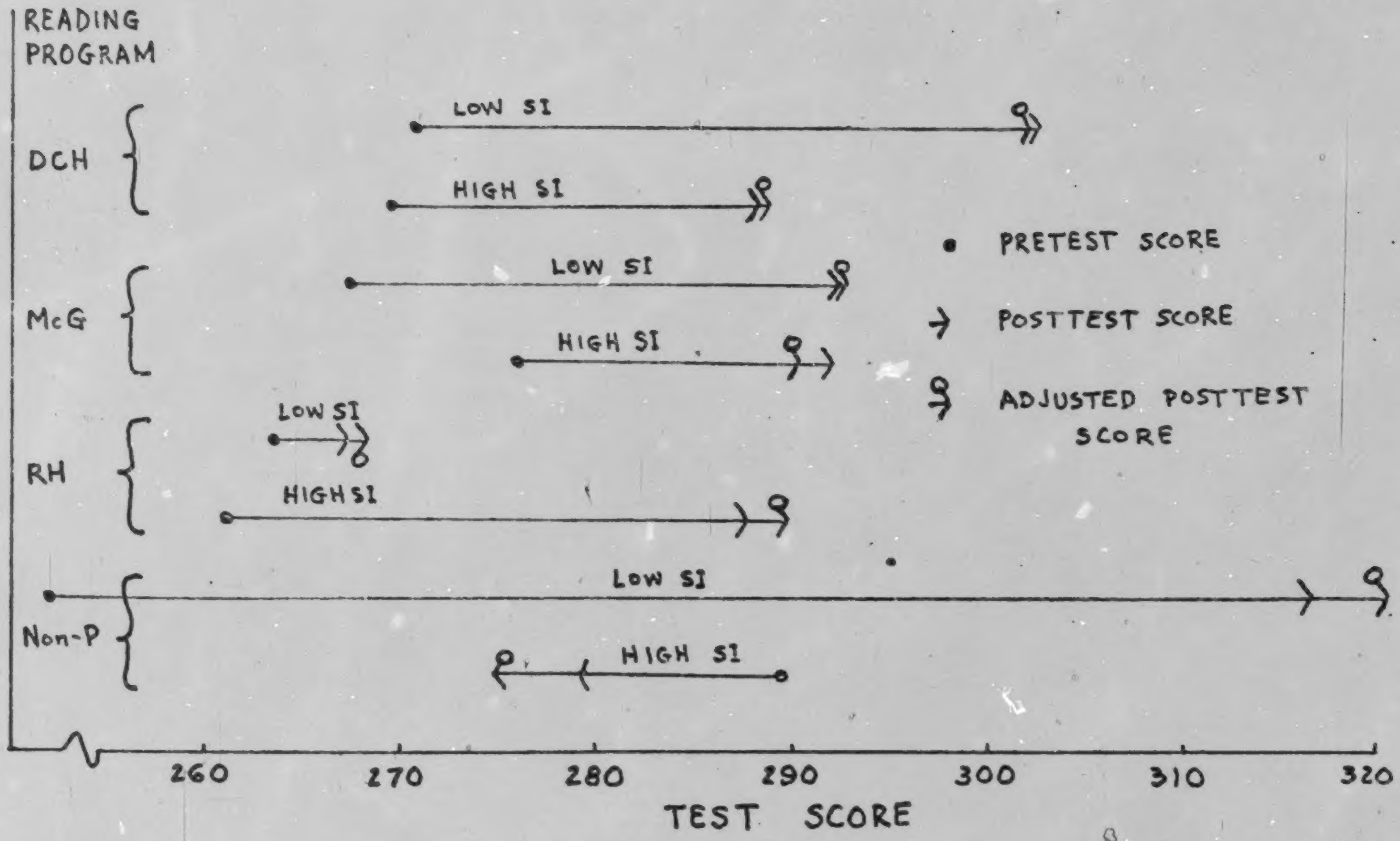


FIGURE 5.2 STANDARD SCORE PRETESTS, POSTTESTS AND POSTTESTS ADJUSTED BY PRETEST

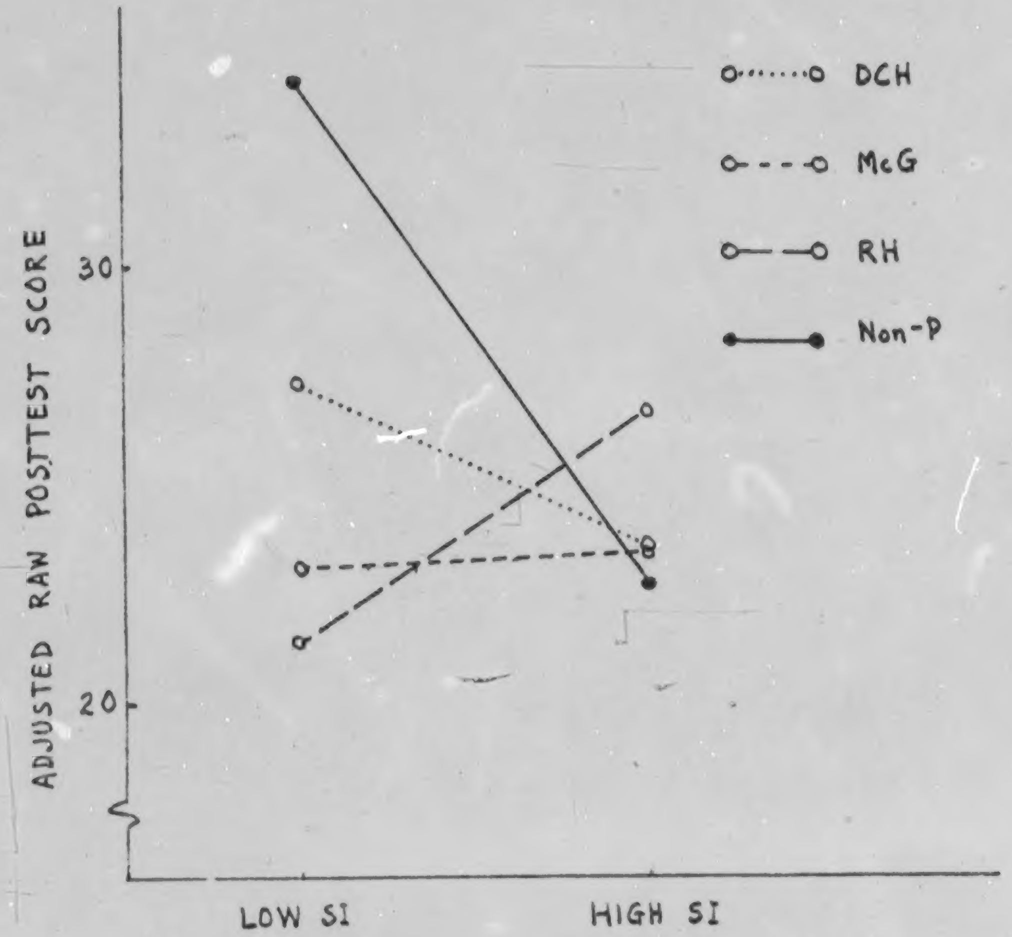


FIGURE 5.3 ADJUSTED POSTTEST MEANS OF READING PROGRAMS, RAW SCORES.

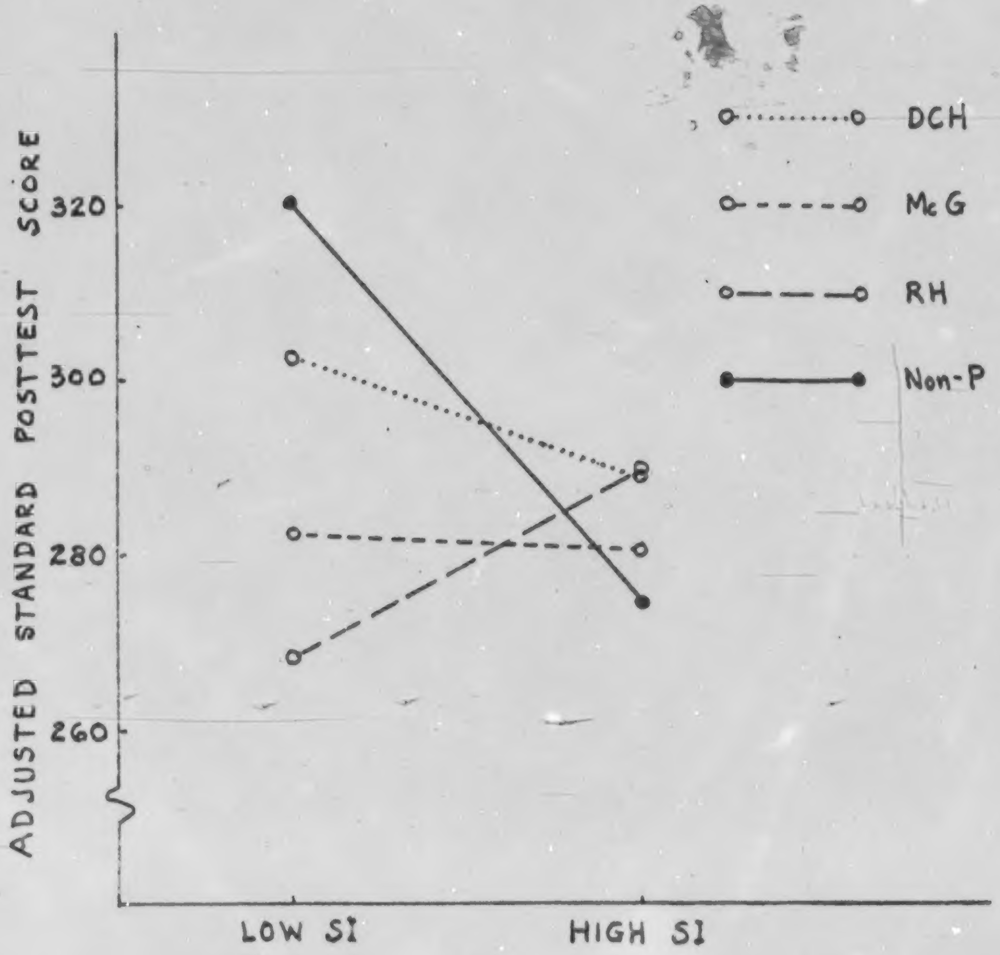


FIGURE 5.4 ADJUSTED POSTTEST MEANS OF READING PROGRAMS, STANDARD SCORES.

scores as for the raw scores. Posttest mean program differences are significant when tested by analysis of variance (P, 3,151 > .05) The F values are 2.72 for raw scores and 3.22 for standard scores.

While the mean of the low supplemental instruction level is larger than the mean of the high supplemental instruction, these differences are not significant.

For all eight cells, the raw score means range from 21.05, the low supplemental instruction level of Random House, to 33.57, the low instructional level of the non-Partnership. The mean of the Random House group is larger for its high instructional condition, while the means of D. C. Health and the non-Partnership groups are larger for their low instructional condition. The analysis of variance indicates that this posttest interaction difference is significant, P <.05 with 3,151 degrees of freedom. The raw and standard score F values are 3.10 and 2.66. Only the former is significant, however.

ADJUSTED POSTTEST

When the posttest means are adjusted for the relationship that exists between the pretest and posttest scores by the technique of covariance, the adjusted means are those included in Figure 5.5. The cell means range from 21.36, the low supplemental instruction level of Random House, to 34.17, the low instructional level of the non-Partnership. For the standard scores (Figure 5.6), the extreme low mean is again the low instructional level of Random House and the high extreme, the low instructional level of the non-Partnership. These extreme means are 218.30 and 320.09 for standard scale scores.

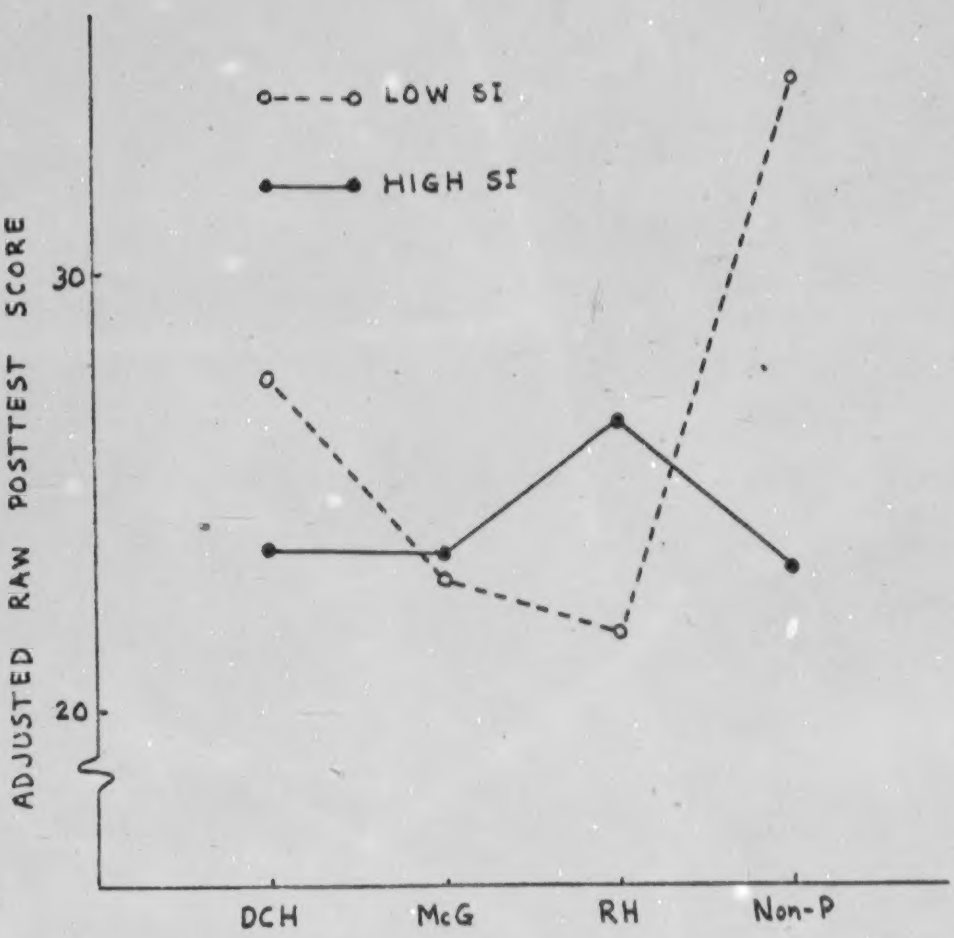


FIGURE 5.5 ADJUSTED POSTTEST MEANS BY LEVELS OF SUPPLEMENTAL INSTRUCTION, RAW SCORES.

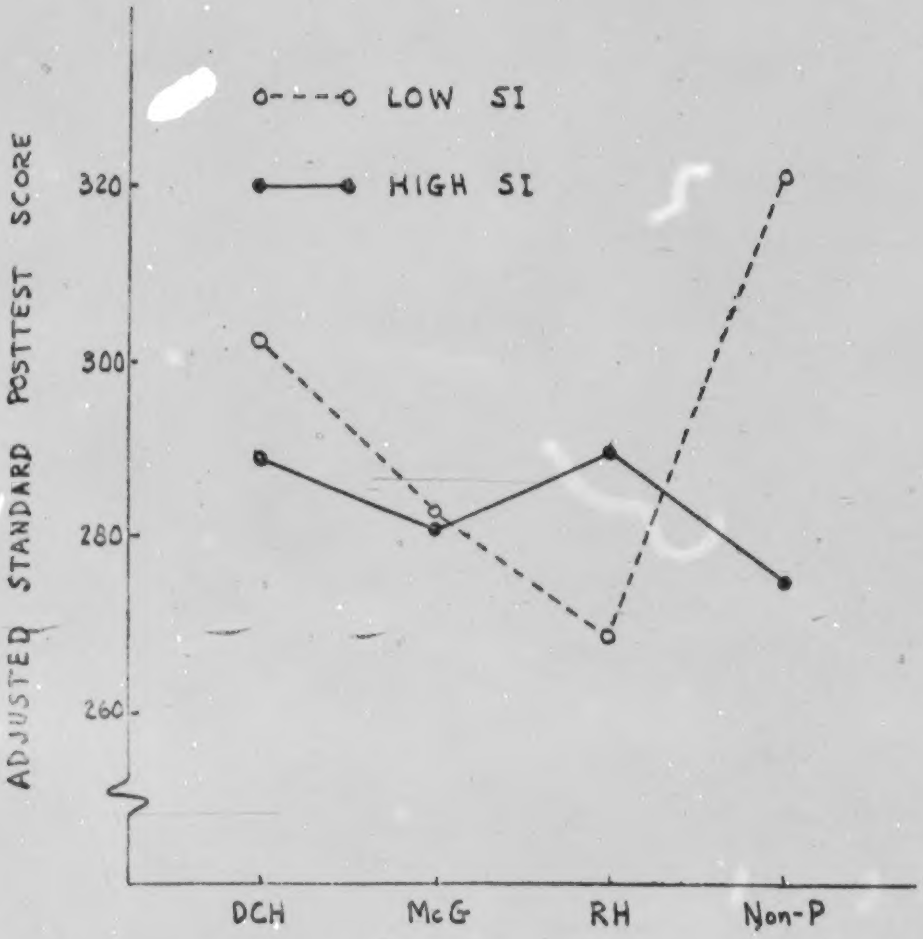


FIGURE 5.6 ADJUSTED POSTTEST MEANS BY LEVELS OF SUPPLEMENTAL INSTRUCTION, STANDARD SCORES

TESTING OF HYPOTHESES AND POST HOC COMPARISONS OF DIFFERENCES

There were two basic hypotheses concerning the reading programs and the level of supplemental instruction. The statistical tests of both are presented separately for both the raw and standard scale scores. The first is that students studying under each of the new partnership programs have higher raw, or standard scale, scores than those in the non-Partnership. The null hypothesis is that there is no difference between students in the different reading programs for either raw or standard scale scores.

PROGRAM DIFFERENCES

Table 5.22 is a summary of the analysis of covariance results for reading raw scores adjusted by the pretest scores. The F value of the adjusted scores, 2.58, is not significant for programs. Therefore, the data do not allow rejection of the null hypothesis for raw scores. Figure 5.5, however, indicates that the non-partnership total adjusted mean of 29.40 is higher than any of the partnership means. The latter are 25.87 for D. C. Heath, 23.22 for McGraw-Hill and 23.44 for Random House. Therefore, the differences between the partnership programs and the non-Partnership mean are indeed significant. Contrary to the prediction, however, the non-Partnership mean is significantly higher, not lower, than the new reading programs.

The data for both the raw and standard score is analyzed further under post hoc examination of differences, to determine the specific groups whose means are significantly different from each other.

LEVELS OF SUPPLEMENTAL INSTRUCTION

The research hypothesis concerning supplemental instruction is that students receiving high levels of supplemental instruction have higher

TABLE 5.22 SUMMARY OF ANALYSIS OF COVARIANCE OF READING ACHIEVEMENT WITH POSTTEST SCORES ADJUSTED BY PRETEST SCORES

Source	df	Adjusted Sum of Squares	Adjusted Mean Squares	F
Raw Score				
Regression	1	393.48	392.48	4.22*
Supplemental Instruction (I)	1	113.85	113.85	1.23
Program (P)	3	720.60	240.20	2.58
(I)(P)	3	1,063.85	344.62	3.71*
Within Cell Error	150	13,914.11	92.96	
Total	158	16,175.88	1,184.10	
Standard Score				
Regression	1	7,672.15	7,672.15	4.83*
Supplemental Instruction (I)	1	2,390.30	2,390.30	1.51
Program (P)	3	14,674.06	4,891.35	3.08*
(I)(P)	3	15,691.79	5,230.60	3.29*
Within Cell Error	150	238,306.60	1,588.71	
Total	158	278,734.90	21,773.11	

*$p < .05$.

raw, or standard scale, scores than those receiving low levels of instruction. The null hypothesis is that there is no differences between students receiving different amounts of supplemental instruction for either raw or standard scale scores.

The F value of neither analysis of convariance, in Table 5.22 is significant; the F values are 1.23 and 1.51, respectively, for raw and standard scores: Therefore, the data do not permit a rejection of the null hypothesis for supplemental instruction.

INTERACTION

While there were no predictions made for interaction, analysis of convariance in a 4 X 2 design enables the investigator to determine whether there was any interaction between factors or not. The F value of 3.71 for interaction presented in Table 5.22 for the raw scores, is indeed significant. The interaction term is again significant for the standard scores in Table 5.22, as indicated by the F value of 3.29. Both interactions are significant, $p > .05$ with 3, 151 degrees of freedom.

In both the raw score and standard score analyses, the means of the low instruction D. C. Heath and non-Partnership cells are larger than those of the high levels of supplemental instruction for these reading programs. For Random House, however, the mean of the high supplemental instruction cell is larger than the low supplemental instruction level. Thus, only the differences between instructional levels for Random House are consistent with the prediction of higher achievement for those students receiving more supplemental instruction. The differences between the means for D. C. Heath and the non-Partnership programs, on the other hand, are contrary to the prediction.

POST HOC EXAMINATION OF DIFFERENCES

Any time an analysis of covariance finds significant or even close to significant differences for a factor with more than two levels, further analysis is conducted to determine the nature of any such differences.

Tukey's HSD test was employed to test the significance of differences in means is 5.93 for an alpha level of .05 and 7.22 for .01 with 4,159 degrees of freedom. Differences between the means of programs are presented in Table 5.23 for the raw scores. The non-partnership mean is significantly greater than the means of both McGraw-Hill and Random House at the .05 level of significance.

Table 5.23 also includes the standard score program differences between means. Although there is a significant main effect for program in the analysis of covariance for Table 5.24. The critical differences needed between means are 10.11 and 11.63 for .05 and .01 levels, respectively. Differences between five pairs of cells are significant. All five differences favor the mean adjusted posttest of the low supplemental instruction level of the non-partnership program. The cell means lower than the latter at the .05 level of significance are the high supplemental instruction levels of the non-partnership, McGraw-Hill, and D.C. Heath as well as the low instructional level of McGraw-Hill. In addition, the mean of the low instructional level of Random House is less than that of the low instructional level of the non-partnership program at the .01 level of significance.

TABLE 5.23 DIFFERENCES BETWEEN PROGRAM MEANS

Program	DCH	McG	RH	Non-P
Raw Score $\bar{x}$'s	25.87	23.22	23.44	29.40
Less $\bar{x}$ of:				
Non-P	3.53	-6.18*	-5.96*	
RH	2.43	- .22		
McG	2.65			
Standard Score $\bar{x}$'s	296.92	281.85	276.74	301.21
Less $\bar{x}$ of:				
Non-P	-4.29	-19.36	-24.47	
RH	20.18	5.11		
McG	15.07			

* $p < .05$

An analysis of standard scale scores shows that there are no significant differences between any pairs of programs. The Random House non-Partnership programs just miss the critical difference of 24.76 necessary for an alpha level of .05.

Interpretation. The raw score mean of each of the eight cells is compared with every other cell mean in this group.

TABLE 5.24 DIFFERENCES BETWEEN ALL ADJUSTED POSTTEST RAW SCORE CELL MEANS

	Low Levels of SI				High Levels of SI			
Programs	DCH	McG	RH	Non-P	DCH	McG	RH	Non-P
Cell $\bar{x}$	27.29	22.94	21.36	34.17	23.74	23.59	26.56	22.73
Less $\bar{x}$ Of:								
Non-P High	4.56	.21	- 1.37	11.44*	1.01	.86	3.83	
RH high	.73	-3.62	- 5.20	7.61	- 2.82	-2.97		
McG high	3.70	- .65	- 2.23	10.58*	.15			
DCH high	3.55	- .80	- 2.38	10.43*				
Non-P low	-6.88	-11.23*	-12.81**					
RH low	5.93	1.58						
McG low	4.35							
DCH low								

*$p < .05$
**$p < .01$

The standard score means and the differences between them are included in Table 5.25. The critical cell differences are 41.31 and 48.05 for the .05 and .01 levels, respectively. The differences between two pairs of means reach significance. The mean of the low instructional level of the non-partnership is greater than the mean of the high instructional level of the same program at the .05 level and also greater than the low instructional level of Random House, $p = .01$.

ASSUMPTIONS OF COVARIANCE

There are five major assumptions to the statistical procedure of covariance. They are: (1) homogeneity of variance, (2) independence of the experimental variables, (3) random assignment to treatment, (4) homogeneity of regression, and (5) linearity between the covariate and the dependent variable.

HOMOGENEITY OF VARIANCE

The assumption of homogeneity of variance was tested by means of the following formula:

$$F \max = \frac{\text{largest variance}}{\text{smallest of variance}}$$

Since the cell sizes are proportional rather than equal, the harmonic mean was used in place of the _N_ for cell size. The harmonic mean is equal to the total number of cells divided by the sum of the reciprocals of the number in each cell. The harmonic mean is 17.24, while for F max is 2.52 for an alpha level of .05 with 8, 18 degrees of freedom. Since the F value for standard scores are 3.38 and 4.79 for raw scores, the assumption of homogeneity of variance is violated.

TABLE 5.25 DIFFERENCES BETWEEN ALL ADJUSTED POSTTEST STANDARD SCORE CELL MEANS

Programs	Low Levels of SI				High Levels of SI			
	DCH	McG	RH	Non-P	DCH	McG	RH	Non-P
Cell $\bar{x}$	302.47	282.77	268.30	320.09	288.60	280.48	289.42	274.49
Less $\bar{x}$ of:								
Non-P high	27.98	8.28	-6.19	45.60*	14.11	5.99	14.93	
RH high	13.05	-6.65	-21.12	31.67	- .82	-8.94		
McG high	21.99	2.29	-12.18	39.61	8.12			
DCH high	13.87	-5.83	-20.30	31.49				
Non-P low	-17.62	-37.32	-51.79**					
RH low	34.17	14.47						
McG low	19.70							
DCH low								

* $p < .05$
** $p. < .01$

Independence of variables. Before the final sample was chosen, the number of students receiving various amounts of supplementary instruction was tabulated for each of the four reading approaches. The original median for these students was 2078 minutes of instruction. During 1972-73, a number of teachers changed reading programs, and students from these classrooms had to be dropped from the final sample because it was stratified on the basis of use of the initially chosen program for five or six months. A new median of 2598 minutes instruction, the final median, was based on the students remaining in the sample. Additional students were dropped because of missing posttests or to achieve proportionality of the cells, but the median was not changed again.

Random Assignment to Treatment. Since the reading programs of the Title I programs which this study evaluated were designed and administered by the school system before any evaluation procedures were determined, the evaluator had no control over assignment of students to classrooms or classrooms to treatment. As noted in the sampling section, there is no information on how students were assigned to classrooms. There does not seem to have been any consistent approach. In some schools, the percent of students in the classes who were identified varied widely. In other schools, the percent was approximately the same for all classes.

As far as the random assignment of groups or classes to treatment is concerned, the assignment was not random, as previously noted. Teachers volunteered for whatever reading program they preferred after a brief introduction to all the new partnership programs.

Covariance techniques were used to overcome the major danger, initial differences in achievement of the groups. This procedure was accordingly followed in the present study.

Homogeneity of Regression. The most important assumption for covariance, one which cannot safely be violated, is the assumption of homogeneity of regression. The reason for its importance is that covariance procedures pool the regressions of all the cells. The pooled regression coefficient must, therefore, be representative of all cells' individual regression coefficients.

A homogeneity of regression test reveals that, for the raw scores, the regression coefficients between the pretests and posttests differed with a probability level of .35, well within chance expectations. For the standard scores, the coefficients were more dissimilar but the probability was .07. Since .05 was selected as the alpha level for determining whether the differences among the slopes were within chance limits, this assumption is supported for both analyses.

Linearity Between Covariate and Dependent Variable. The relationship between these variables was tested with a polynomial regression test. The F-observed of 2.99 for standard scale scores is significant, P = .10 probability, but the F-observed of 2.46 for raw scores is not significant. Nevertheless, there are no non-linear relationships that are significant. Thus, the assumption of linearity is sufficiently supported.

INVESTIGATION OF SEX DIFFERENCES

While there were no predictions regarding sex differences, they were investigated because of the fact that boys generally test lower than girls in reading in the early grades. The ratio of boys to girls who received supplemental instruction from the reading resource teacher was 95 boys to 64 girls.

A comparison of mean pretest, posttest, and adjusted pretest scores for boys' and girls' raw and standard scores was made. On the pretests, the raw score means are identical, 19.23, but the standard score pretest mean of the boys is higher than that of the girls. The posttest mean of the boys was higher than that of the girls for both the raw and standard scores. When the posttest scores were adjusted by the pretests, however, the mean of the girls was higher than the boys' for the raw scores. In the standard score analysis, the adjusted posttest mean of the boys remained higher than the girls'.

The standard score comparison of sex differences -- analysis of variance of pretests and posttests plus analysis of covariance with the pretest score as covariate -- was calculated. The F value for the pretests is .43 for standard scores. Again this is not significant, $p < .05$ with 1,157 degrees of freedom. The F values of 4.74 and 4.06 for the unadjusted and adjusted posttests are again significant but only at the .05 level. The adjusted posttest mean of the boys', not girls', standard scores is significantly higher.

3. Further Analysis

The data did not support either of the research hypotheses. In fact, the non-partnership had higher not lower achievement. This was true in the absolute number of correct responses on the total reading test of the raw score analysis. The non-partnership group also had higher achievement in the standard score analysis. In relation to the distribution of scores from the norming population, the relative picture of students' achievement provided by the standard scores, the non-partnership students still experienced greater achievement.

INTERPRETATION OF PROGRAM DIFFERENCES

Although program differences, contrary to the prediction of the hypothesis, were significant only in the standard score analysis, these findings were reinforced by the analyses of the interaction between program and amount of supplemental instruction. For both the raw and standard scores, the low supplemental instruction level of the non-partnership had significantly better achievement than the high instructional group with the same program. Thus, the program's main effect for standard scores as well as corresponding differences between means were attributable to only the low instructional level of the non-partnership.

Since this group was the only one having significantly higher achievement than the others, it is pertinent to examine its composition. The significantly higher achievement found in the present study is attributable to just 14 students in four classrooms, in four different schools; one of the classrooms was represented by only a single student.

Since so few classes and also schools were represented in this cell, unusual attributes of one or two schools or teachers could have an appreciable impact on the average achievement for the group. No other group was represented by as few classes and schools. Thus, no other group was as vulnerable to the influence of unusual teachers or schools. There is no specific evidence to either support or undermine this possibility. However, some of the schools in this group could have achieved a strong sense of community between teachers and staff. Or the administration in a school could be strongly supportive of practices which foster academic achievement. One or two classroom and/or resource teachers could have an exceptionally strong understanding of how to help children read better. These or many other factors might have had such an effect on these three or four classrooms that their achievement was significantly higher.

THE EFFECT OF THE VIOLATIONS OF ASSUMPTIONS OF COVARIANCE

Since just a small number of students in four classrooms attained higher achievement scores, it is worth recalling that random assignment to treatment of both students and teachers was an assumption of covariance that was violated in this study. Covariance does not make up for the lack of equivalence of the groups. It simply attempts to statistically control for any variable that is definitely related to the dependent variable, in this case, final achievement scores. It does nothing, however, to control for any number of other variables that may also be related to students' achievement. Without random assignment there is no way of determining how these other factors were distributed among the cells of the experiment.

TEACHER, RESOURCE TEACHER AND STUDENT VARIABLES

Having reviewed the limitations of covariance as a procedure to compensate for the use of nonequivalent, existing groups, the most parsimonious explanation of the findings is that there were differences in the teachers, students, teacher-teacher relationships and/or teacher-student relationships. The limitations of the present research where no observations were possible become apparent.

What happened in these classrooms and reading centers? Was there a difference in the manner in which teachers or resource teachers worked with the children? Were there differences in the "traditional" methods and materials that they used? Did they borrow from any of the new program materials that other teachers had volunteered to use without being obligated to use the entire program? Some recent information of the larger evaluation reveals that there was not a clear-cut division between Partnership classrooms.

Another limitation in interpreting the findings is that there is no information on either type of teacher concerning the number of years and kind of teaching experience or level of educational background.

RELATIONSHIP OF SUPPLEMENTAL INSTRUCTION TO ACHIEVEMENT

Rather than clarifying the relationship between the amount of time for teaching reading and students' achievement, the present study has confounded the issue further. There were no significant main effects for supplemental instruction. In fact, the adjusted mean reading achievement of all students who had received high amounts of supplemental instruction was actually somewhat lower than it was for those who had received lesser amounts of instruction. Furthermore, there was significant differences within the non-partnership favoring those students who had received low supplemental instruction. The question of specific teacher differences for the three classroom and/or reading resource teachers of the low instructional cell of the non-partnership has already been raised.

THE EFFECT OF SUPPLEMENTAL INSTRUCTION FOR DIFFERENCE PROGRAMS

A further complication for interpretation of this study's findings is that the relationship between the amount of supplemental instruction, divided into high or low, and student achievement varied among the reading programs. D.C. Heath, like the non-partnerhip, had higher achievement for those students receiving less supplemental instruction, although the difference was not significant. Random House, on the other hand, had higher achievement for those students who had supplementary instruction.

Were there differences in the ways that teachers provided supplemental instruction for Random House as opposed to the non-partnership and D.C. Heath? Was Random House's approach more attuned to the requirements of the achievement test? Did the supplemental instruction provided the Random House students complement the instruction of their classroom teachers? Was the supplemental instruction provided the D.C. Heath and non-partnership students inconsistent with their classroom instruction? Was the element of supplemental instruction in addition to the late beginning of the partnership programs generally too disruptive to the reading instruction of the classroom? Did something occur in the low instruction Random House group to minimize this disruption?

Since the non-partnership low supplemental instruction level was significantly superior to both the same program's high instruction level and the low instructional level of Random House, perhaps there were exogenous factors operating in these latter groups.

One factor does appear to pertain to the non-partnership program and, in particular, the high instructional level of that program. This factor was change of teacher within the classroom during the school year. Five non-partnership classrooms, 320, 321, 340, 372, and 374, had a different teacher at the posttest than they had had for the pretest. Only one partnership classroom experienced teacher turnover during the year. More significant is the fact that only one class from the low instructional cell of the non-partnership with only one student in the sample had a teacher change. All the other non-partnership classes which experienced teacher turnover were in the high instructional cell; the latter classes contributed six students to the total N of ten in the cell. It seems reasonable to assume that a change of classroom teacher might disrupt learning.

The question also arises of how supplemental instruction was perceived by the non-partnership students. Since there was no new program within the classroom creating a Hawthorne effect for the non-partnership students, perhaps these students perceived being sent from the room for extra instruction as a stigma. One study compared Title I reading programs in the schools with a control school providing no remedial reading. One Title I program was similar to that of the present study; students were sent to a reading specialist for remediation. In the other Title I program, another teacher joined the classroom teacher in team teaching reading with the same size groups as in the former program. The gains of those students who were team taught were significantly higher than those sent out to a reading teacher.

A final word of caution concerns the ability to generalize these findings. One factor limiting generalization is that this was the initial year of the program. Frequently, a year is needed to smooth the operation of a new program. A second limiting factor has to do with the loss of 47 subjects due to program change and missing posttests. These non-random deletions from the sample may have distorted their representativeness. A third has to do with the nebulous nature of the reading resource teacher and the small amounts of remedial help provided even in the high supplemental instruction level.

4. Conclusions and Recommendations

The data do not suggest the superiority of CRP materials over approaches used by non-partnership classes. However, the reason for such findings are unclear, and limitations in the data (primarily because there could be no controls over assignment to the various CRP and non-partnership groups). Moreover, CRP materials were generally not introduced into the classrooms until November or December, which means that they represented a change of materials and reading approach in midyear. This might be expected to cause a disruption in the student learning process. Conclusions based on the limited data therefore must be tentative. However, the following suggestions can be made:

> The school system might benefit from asking for research findings showing the effectiveness of proposed materials in other school situations before purchasing large amounts of such materials.

This would minimize the risk in adoption of new materials, in terms of cost in dollars and student time.

If new materials are to be introduced, it would be of considerable benefit to incorporate an evaluation plan into their adoption and use. Thus classrooms might be assigned to use certain materials through random methods, so that comparisons might be made which were inappropriate for this study. A variety of controls could be used to provide for a test of the effectiveness of the materials.

D. COST-EFFECTIVENESS EVALUATION OF THE COMPETITIVE READING PARTNERSHIP

1. Cost-Effectiveness Concept

The concept of cost-effectiveness must be distinguished from the concept of cost-benefit. Although the two terms are often used interchangeably, there are fundamental distinctions. In cost-benefit analysis, the monetary cost of a program is normally compared with its expected benefits, and normally these benefits are expressed in dollars. Cost and benefits may also be expressed in non-dollar terms. For example, in a comparison of different types of training programs for special education personnel, "benefits" could be shown in number of persons trained in cost-effectiveness analysis, on the other hand, costs are calculated and alternative methods for achieving a specific set of results are compared.

In cost-effectiveness analysis, the planner's objective is to identify for the policymaker the controllable variables and parameters that will maximize the value of the system under an assumed set of conditions. This assumed set of conditions is defined by the state of certain uncontrollable variables and parameters. For example, budget constraints must be considered. If the budget is fixed, it is an uncontrollable variable and the objective is to maximize effectiveness under budgetary and other constraints.

The purpose of this analysis is to assess the cost-effectiveness of the Competitive Reading Partnership (CRP), a component of the Title I Program of the District of Columbia. The analysis compares effects, as measured through selected variables for a sample of third grade students, with the costs of instruction using reading materials provided by each of three different contractor-suppliers to the District of Columbia.

2. Methodology

THE COMPENSATORY EDUCATION PROCESS

The input variables for use in the cost-effectiveness analysis are identified through a descriptive analysis of the compensatory education process. The specific focus of compensatory education is the problem of educating each child, with concern for the organization, preparation, and actions that must be undertaken by the school in providing compensatory education.

The educational process deals with the need for systematic knowledge. This process requires (1) training of instructional personnel; (2) planning and implementation of instruction; and (3) testing of results.

Some experts believe that children who are seriously "unachieving" should be viewed as having an "abnormal" rather than a "normal" lack of knowledge. Based on this assumption, the following steps in the compensatory education process can be identified:

1. Diagnosis - of the reasons for an "abnormal" lack of knowledge;
2. Prescription - instructional techniques to deal effectively with the problems found in diagnosis;
3. Communication of prescription to instructional personnel;
4. Design and implement instructional techniques;
5. Evaluation of the success of the program for more effective ongoing planning and programming.

The technique used in the compensatory education process has been instruction, group and individualized. In group instruction all members of the class are exposed to the same set of experiences. Every student hears the same teacher lecture, and there is class participation by the student peers. In individualized instruction there is relationship or interaction of the instructor directly with the individualized pupils. In this study both individual and group instruction were utilized.

APPROACH

In order to compare the cost-effectiveness of the three CRP groups -- D.C. Heath, Random House and McGraw-Hill -- two procedures were used. The first procedure involved comparing the differences in reading vocabulary, reading comprehension, and reading total scores before and after the treatment (instructional programs). Specific observable indications of the effectiveness of the program are the changes in the mean pretest scores, and adjusted posttest scores, and the average cost per child for each supplier-contractor. (See Table 5.1).

The second procedure used to analyze the cost-effectiveness strategy, which serves as a supplement to the first procedure, is the F-statistic. The F-statistic is a test of the relationships between the variance of the means ($\bar{X}$) of two or more groups. In special cases, with two groups, for example, the t and F statistics are directly related. That is, t^2 qualifies as an F ratio with 1 and n-t degrees of freedom for a single mean. The ratio of the values of F necessary for statistical significance at the 1% and 5% levels are recorded in special statistical tables. Degrees of freedom refers to the number of independent components remaining in the groups after the means are calculated. The F-ratio used in this analysis will tell us that the variation among sample means cannot reasonably be attributed to chance.

TABLE 5.1 GRADE THREE ADJUSTED MEAN GAIN SCORES (IN GRADE EQUIVALENT YEARS) BY CONTRACTOR-SUPPLIER

Name of Company	Reading Vocabulary	Reading Comprehension	Reading Total
D.C. HEATH	1.0037	0.6106	0.5689
McGRAW-HILL	0.6901	0.4872	0.4334
RANDOM HOUSE	0.4497	0.3846	0.2833
NON-PARTNERSHIP	1.4980	0.7723	0.8382

Studies of cost-benefit analysis and input-output analysis in the field of education have identified several variables associated with variation in the effect of different compensatory education programs. Minutes of instruction in groups and on an individual basis have been identified as significant variables in explaining the change in pretest and posttest scores for grade school children. These variables are used as independent variables for this study (see Table 5.2).

It was thought that the amount of instruction provided by special teachers and paraprofessionals might have an effect on the students' learning environment. (Therefore, the amount of time each student and each group of students spent with the project staff each company.) This information was used to construct the variables of individual and group equivalent minutes (SPIM, GIEM, etc.) spent with each child on a weekly basis by instructional personnel.

Since the major objective of this analysis is to analyze the effect of the independent variables on changes in test scores, the dependent variables are the Reading Vocabulary posttest, Reading Comprehension posttest, and the Reading Total posttest scores (see Table 5.3).

TABLE 5.2 INDEPENDENT VARIABLES

		Code
1.	Number of extra-classroom supplement minutes per week classroom teachers.	CLESM's
2.	Total number of minutes per week of instruction by Reading Resource Teacher.	TSPM's
3.	Minutes per week of group instruction by reading resource teacher .	GM's
4.	Minutes per week of group instruction per size of group.	GIEM's
5.	Minutes per week of individual instruction by reading resource teacher.	SPIM's
6.	Individual minutes of teacher instruction per week by size of group.	SPECIEM's
7.	GIEM's & SPIM's	TRRM's
8.	GM's & SPEIM's	TTSM's
9.	GIEM's & SPIM's	TSPECIEM's
10.	Percent of students in a given grade identified as educationally disadvantaged.	PCNGRID
11.	Percent of students in a given grade identified as low income.	PCNLOIN

TABLE 5.3 DEPENDENT VARIABLES

Description	Code
Reading pretest vocabulary subtest grade equivalent	RDGPRVOC
Reading posttest vocabulary subtest grade equivalent	RDGPOVOC
Reading pretest comprehension subtest grade equivalent	RPRCOMP
Reading posttest comprehension subtest grade equivalent	RPOCOMP
Reading pretest total grade equivalent	RDGPRTOT
Reading posttest total grade equivalent	RDGPOTOT

3. Findings and Analysis

STUDENT GAINS AND COSTS

Table 5.4 shows the mean score and standard deviation for each of the independent variables by company. Means are also shown for the non-partnership group, although it had a different educational mix of students and therefore cannot be directly compared with scores for students participating in the CRP. The significance of these mean scores is summarized in Table 5.1 which shows the differences between mean pretest and posttest scores by contractor-supplier. As this table shows, children using materials from the D.C. Heath Company showed the greatest increases -- one grade equivalent year for the Reading Vocabulary and 6.1 months for Reading Comprehension. McGraw-Hill showed the next highest gains, with 6.9 months for Reading Vocabulary and 4.8 months for Reading Comprehension. Random House showed the lowest mean increases, with 4.5 months for Reading Vocabulary and 3.8 months for Reading Comprehension.

Table 5.5, shows average per child dollar expenditures for the CRP suppliers; the table demonstrates that D.C. Heath is the lowest cost program, with per child expenditures at $19.41, as compared with $23.63 for McGraw-Hill and $26.57 for Random House.

If cost-effectiveness is defined as obtaining the greatest reading score changes per dollar expenditure, then D.C. Heath Company is clearly the most cost-effective CRP supplier. It has both the highest mean changes and the lowest costs per child.

TABLE 5.4 ADJUSTED MEAN AND STANDARD ERROR BY CONTRACTOR-SUPPLIER

Variable	D.C. Heath N=288 Adjusted Means	S.E.	McGraw-Hill N=210 Adjusted Means	S.E.	Random House N=261 Adjusted Means	S.E.	Non-Partnership N=226 Adjusted Means	S.E.
Pretest Vocabulary (RDGPRVOC)	2.2000	1.0990	2.0545	1.1710	2.2524	.9360	2.2040	1.0550
Reading Posttest Vocabulary (Subtest) (RDGPOVOC)	3.1878	1.2021	2.8742	1.0407	2.6337	.8888	3.3338	.9519
Reading Pretest Comprehension (Subtest) (COMP)	2.2905	1.1240	2.0975	1.1800	2.3340	1.5150	2.4186	1.4950
Reading Posttest Comprehension (Subtest) (RPOCOMP)	2.9056	1.0145	2.7821	.8799	2.6795	.7499	3.0672	.8046
Reading Posttest Grade Equivalent (RDGPOTOT)	2.8050	.9856	2.6696	.8549	2.5195	.7287	3.0744	.7812

TABLE 5.5 AVERAGE PER CHILD DOLLAR EXPENDITURE FOR COMPETITIVE READING PROGRAM SUPPLIERS

Supplier-Contractor	Average Per Child Cost	Contractor Cost Ratio*
D.C. Heath	$19.41	1.20
McGraw-Hill	23.63	0.98
Random House	26.57	0.87
Non-Partnership	(Not Applicable)	

Average cost total $23.20

* This is calculated as ratio of the average per child cost for that company's materials to the average cost for all companies.

EFFECTS OF OTHER VARIABLES

The best predictors of instructional progamm effectiveness by the three companies (D.C. Heath, Random House, and McGraw-Hill) are shown in Tables 5.6, Table 5.6.2, and Table 5.6.3. The other variables discussed failed to add explanatory power. Multiple regression analysis was used to provide this information.

The independent variables used in the equations provide an explanation of which of the expected independent variables, actually accounted for the variation in mean scores; they suggest the instructional factors contributing to reading score changes but they do not provide inferences as to cost-effectiveness.

Equations (1), (2), and (3) in Table 5.6, present the best model for Reading Vocabulary Reading Comprehension, and Reading Total posttest scores for the D.C. Heath company. The best predictor of Reading Vocabulary posttest scores and also for Reading Comprehension and total test scores is the minutes of individual instruction per week provided by a reading resource teacher. As the number of minutes of individual instruction by the resource teacher increases, posttest scores for the pupils also increases. Tht total number of minutes per week of instruction by reading resource teacher (TSPM), percent low income (PCNTLOIN), and number of supplemental minutes of classroom teacher instruction (CLESM) show a declining relationship to the changes in reading vocabulary posttest scores. (ROGPOVOC), as seen in Equation (1).

Equation (3) shows that the total individual minutes of teacher instruction per week by size of group (TSPECIEMS) and individual minutes of

TABLE 5.6 PREDICTOR VARIABLES OF CRP EFFECTIVENESS-D.C. HEATH COMPANY

1. $RDGPOVOC = 3.1878 - 0.38\ PCNTLOIN - 0.03\ CLESM - 1.55\ TSPM + 4.38\ SPIM - 3.13\ TCRM$

   S.E. = 1.2021
   F(11,276) = 3.47

   $R^2 = 0.35$

2. $RPOCOMP = 2.9056 - 2.27\ TSPM + 6.59\ SPIM - 4.52\ TCRM + 18.52\ TSPECIEM$

   S.E. = 1.0145
   F(11,276) = 2.49

   $R^2 = 0.30$

3. $ROGPOTOT = 2.8050 - 0.33\ PCNTLOIN - 0.022\ CLESM - 1.58\ TSPM - 13.31\ GIEM + 4.60\ SPIM$

   S.E. = 0.9856
   F(11,276) = 2.68

   $R^2 = 0.31$

individual instruction by reading resource teacher (SPIM) are positively related to the total reading test scores for pupils. The other variables in equation (3) (percent low-income students, etc.) are negatively related to the Total Reading Test scores.

Equations (4), (5), and (6) in Table 5.6.2 present the best explanatory models for the McGraw-Hill company. In equations (4), (5), and (6), the percent of students in a given grade identified as educationally disadvantaged (PCNGRID) is negatively related to the small change in the scorss for each of the dependent variables. As the percent of low-income students increases, the posttest scores decrease. Percent low income (PCNLOIN) provided the greatest amount of explanatory power for each of the dependent variables in the McGraw-Hill company. (CLESM) is not significantly related to Reading Vocabulary subtest scores and Reading Total posttest scores.

Equations (7), (8), and (9), in Table 5.6.3 provide the best explanatory model for the Random House Company Reading Program.

Minutes of group instruction per week, when the size of the group is considered (GIEM), show a positive relationship with posttest scores for reading vocabulary, reading comprehension and total test. Identification of disadvantaged students in the classroom shows a negative relationship with respect to posttest scores. The total number of minutes of combined individual and group instruction per week (TSPECIEM) tends to show a negative relationship with change in posttest scores.

The F-ratios for the equations are significant at the 5 percent level. This means that we can reject the null hypothesis of no difference

TABLE 5.6.2 PREDICTOR VARIABLES OF CRP EFFECTIVENESS-MCGRAW-HILL COMPANY

4. RDGPOVOC = 2.8742 - 1.31 PCNTLOIN + 0.03 CLESM
+ 0.53 PCNTGRID

S.E. = 1.2021
F(11,198) - 2.51

$R^2 = 0.35$

5. RPOCOMP = 2.7821 - 1.78 PCNTLOIN - 0.85 ITSM
+ 0.64 PCNTGRID

S.E. = 0.8799
F(11,198) = 3.25

$R^2 = 0.153$

6. RDGPOTOT = 2.6696 - 1.53 PCNTLOIN + 0.023 CLESM
+ 0.59 PCNTGRID

S.E. = 0.8549
F(11,198) = 2.91

$R^2 = 0.37$

TABLE 5.6.3 PREDICTOR VARIABLES OF CRP EFFECTIVENESS-RANDOM HOUSE

7. RDGPOVOC = 2.6337 - 10.08 GIEM
   - 8.07 TSPECIEM - 0.41 PCNTGRID

   S.E. = 0.8888
   F(11,249) = 3.18

   $R^2 = 0.35$

8. RPOCOMP = 2.6795 - 0.32 PCNTLOIN+13.63 GIEM
   - 13.74 TSPECIEM - 0.26 PCNTGRID

   S.E. = 0.7499
   F(11,249) = 2.49

   $R^2 = 0.32$

9. RDGPOTOT = 2.5195 - 0.34 PCNTLOIN+12.08 GIEM
   - 10.18 TSPECIEM - 0.32 PCNTGRID

   S.E. = 0.9856
   F(11,249) = 3.11

   $R^2 = 0.35$

between the independent variables and dependent variables. The differences found are unlikely to have been the result of random sampling from some specified population.

4. Conclusions

Based on the cost-effectiveness analysis, D.C. Heath Company required the lowest average per child dollar expenditures while leading to the largest calculated changes in mean class scores on the competitive tests for the sample of third grade students. It therefore apparently offers the most cost-effective reading materials.

However, there may be other variables that affect the comparability of the groups using materials from each of the three companies (as suggested earlier in the sampling methodology discussion). For example, the children may not have been sufficiently similar in selected variables (although available information suggests that they were similar). They may not have taken the pretest and posttests at the same time. McGraw-Hill materials were used by the largest sample of classrooms (as shown in Table 5.7). Based on available information, however, D.C. Heath materials appear most cost-effective, and most effective overall.

Multiple regression analysis suggested the importance of specific independent variables in helping to determine student progress. It appears that the amount of individualized and group instruction are especially important variables in the compensatory education process.

TABLE 5.7 PER CHILD DOLLAR EXPENDITURE FOR COMPETITIVE READING PROGRAMS

Name of Programs	Number Students Served	Instruc. Material	Per Child Cost	No. Staff & Parents Trained	Cost of Staff Training	Average Trainee Cost	Total Cost Program	Average Per Child Cost
D.C. Heath	3,826	54,162	14.17	354	20,000	56.49	74,162	19.41
McGraw-Hill	5,175	113,317	21.89	435	9,000 to matching gratuity amount 18,000	41.37	122,317	23.63
Random House	3,459	69,490	20.08	347	22,442	64.67	91,932	26.57
Total	12,454	236,970	19.02	1,136	51,442	45.28	288,412	23.15

* Expenditures indicated above are for the Competitive Reading Program only. And do not include expenditures for materials and training in the Competitive Mathematics Program.

VI.

ADMINISTRATION AND COMMUNITY INVOLVEMENT

VI. ADMINISTRATION AND COMMUNITY INVOLVEMENT

A. CENTRAL ADMINISTRATION

1. Summary

The Central Administration component of the Title I program is understaffed and thereby seriously limited in carrying out its responsibilities for planning, program development, administration, monitoring and assessment. While data obtained through document review, interviews, and use of structured questionnaires were incomplete, insights were obtained concerning the strengths and weaknesses of the Central Administration component.

2. Component Objectives

The Central Administration component of the Title I program is responsible for organization and supervision of the total program, according to the FY 1973 Plan of Operations. It is responsible for providing:

- Sound and efficient management procedures;
- Development and maintenance of administration which provides for goal achievement through an operationally sound structure;
- Assurance of compliance with federal regulations. Thus the Central Administration component's objectives are supportive to assure that program objectives of direct service components are met, thereby contributing to the overall Title I goal of improving instruction and student achievement.

3. Component Structure and Scope

During the 1971-72 school year, the Title I program was placed in the Division of Instruction. In 1972, the State Plan recommended that a single office be established to assume full administrative and management control for the program. This led to its placement under the direction of the Associate Superintendent for the Division of Instruction, an organizational arrangement which was operationalized during the 1973-74 school year. This new structure was designed to facilitate:

- The coordination and organization of instructional and non-instructional programs;
- The delivery of support services;
- Title I program reinforcement of other instructional programs;
- Optimal use of the resources and expertise of all public school departments.

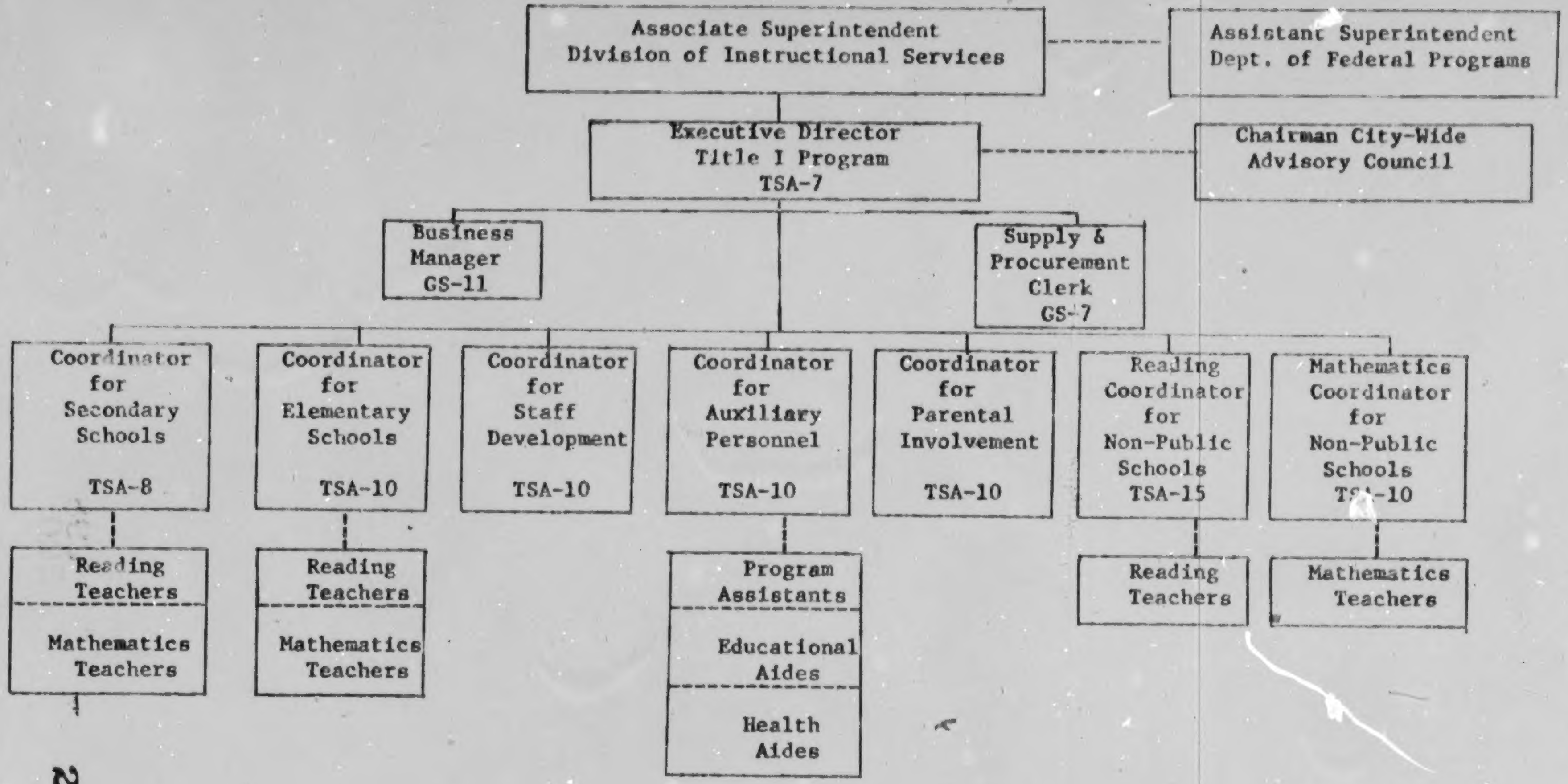
Title I Central Administration is responsible for developing, planning, organizing, administering, managing, and monitoring the total Title I Program. Emphasis is placed upon utilizing the resources of other Public Schools departments in order to produce a powerful synergistic effect in the coordination of instructional and non-instructional programs.

The organizational structure of Central Administration and its relationship to all other Title I personnel are shown in Figure 6.1 attached.

4. Evaluation Methodology

Evaluation of Central Administration was approached in terms of specific administrative functions, with major emphasis upon planning, monitoring and evaluation, personnel management, and fiscal management, as well as overall administration. Data were collected through

FIGURE 6.1 TITLE I ORGANIZATIONAL CHART, FY 1973


Associate Superintendent Division of Instructional Services
Assistant Superintendent Dept. of Federal Programs
Executive Director Title I Program TSA-7
Chairman City-Wide Advisory Council
Business Manager GS-11
Supply & Procurement Clerk GS-7
Coordinator for Secondary Schools TSA-8
Coordinator for Elementary Schools TSA-10
Coordinator for Staff Development TSA-10
Coordinator for Auxiliary Personnel TSA-10
Coordinator for Parental Involvement TSA-10
Reading Coordinator for Non-Public Schools TSA-15
Mathematics Coordinator for Non-Public Schools TSA-10
Reading Teachers
Mathematics Teachers
Reading Teachers
Mathematics Teachers
Program Assistants
Educational Aides
Health Aides
Reading Teachers
Mathematics Teachers

the use of structured questionnaires, personal interviews, and review of official documents and former evaluations. All available administrative staff and supervisory personnel were asked to complete structured questionnaires, and supplemental interviews were carried out with key personnel. In addition, data obtained through questionnaires and interviews with other Title I personnel (classroom and resource teacher, for example) provided supplementary information concerning their perspective on Title I administration.

The Central Administration questionnaire was designed to collect specific data concerning administrative procedures, planning mechanisms, personnel policies, evaluation procedures, specific responsibilities of the respondent, decision-making procedures, and strengths and weaknesses of the component as it was operating during the 1973 fiscal year.

5. Findings and Analysis

Data were obtained from a total of 23 central administrative staff and supervisory personnel. Only six questionnaires (those completed by the Executive Director, Coordinator for Secondary Schools, Coordinator for Parental Involvement, Coordinator for Title I Non-Public Schools, Coordinator for Parental Involvement and Coordinator of Nursing, (North) were complete; the other 17 included less than 50 percent of the requested information. Moreover, a total of 40 questionnaires were hand-delivered to central administration staff and supervisory personnel, and 17 could not be collected. For example, one central administration staff member wrote a letter stating that he did not have time to respond to the questionnaire. (It should be noted that the instrument was sufficiently brief that its completion should not have taken significantly more time than was required to write the letter). This high rate of non-responses and incomplete forms hindered the evaluator from conducting a meaningful assessment of the Central Administration component.

Data that were collected, however, provided insight both into the strengths and weaknesses of the Central Administration component and into possible reasons for the lack of full responses to the questionnaires. Many supervisory and administrative personnel were found to have held their positions a very brief period, and therefore may not have been thoroughly familiar with job responsibilities and component functions. This interpretation is supported by the written statement of one respondent: "Many of the questions were not answered as I am only an acting coordinator."

Major findings are reported below, by functional area.

a. Project Planning

Administrative and supervisory personnel were asked about planning guidelines development and use, methods of determining planning needs, the establishment of planning priorities, participation in planning, and proportion of total working time devoted to planning.

Seventeen respondents reported the existence of written planning guidelines and 16 reported having access to them. There was some disagreement concerning when they were developed, with 11 respondents reporting dates ranging from 1967 to 1973. Only nine personnel were aware of changes in the planning guidelines that had occurred since the program became operational. Thus there was limited knowledge of

Program Planning Guidelines even among supervisory and administrative Staff.

Nine personnel identified a wide range of techniques used to identify planning needs; they specified standardized test results, teacher interviews, needs assessment committee recommendations, input from city-wide Parent Advisory Committee delegates, student questionnaires, teacher questionnaires, and a needs assessment form. Nine respondents did not answer this question.

Central Administration personnel reported the following individuals and groups participated in setting planning priorities in line with program goals and objectives, following the identification and documentation of planning needs: Parent Advisory Council, central administrators, teachers, the Superintendent of Schools, Board of Education, Local Education Agency (LEA), students, community representatives, and the Office of Planning, Research and Evaluation. Eight respondents reported the following planning needs were given top priority: reading, mathematics, disadvantaged students scoring at or below the 50th percentile on standardized tests, parent involvement and training, enrichment activities, field trips, self-improvement, program assistance, and educational aides. The above list includes subject areas (such as reading and mathematics), problem areas (such as disadvantaged students), program areas (such as enrichment activities), and personnel (such as educational aides). Thus there appears to be little concensus concerning the kinds of issues which provide the focus for planning.

b. Project Evaluation and Review

Evaluation of the Title I Program should include both internal and external assessment, process and impact measurement, monitoring for management use, and assessment for documentation and planning purposes. The FY 1973 Plan of Operation did not contain an internal evaluation component, and there was no formal structure operative in the FY 73 program to provide administrators or supervisors with regular or immediate feedback on program operations.

The Executive Director reported that criteria for program evaluation were considered during the planning and start-up phases of the FY 73 program. However, the criteria were not described by her, nor were sources specified. There is no written policy within Title I describing methods for developing program evaluation criteria for internal evaluation.

The program is therefore almost totally dependent upon external evaluation; however, a review of recent external evaluation reports indicates little relationship between the evaluator's recommendations and the content of subsequent programs. According to the Executive Director, external evaluations conducted prior to FY 73 emphasized long-term objectives and approaches. Moreover, evaluations were reported to rely on cost-effectiveness and efficiency of operation measures.

Review and evaluation terms do carry out evaluations of program activities, progress, and problems; serve as a communication channel with Title I personnel; provide advice and redirection; and give management assistance to the program components. Two such teams are involved.

The first is a State Educational Agency (SEA) Monitoring Team which visits each Title I school to determine whether federal guidelines are being followed and the program is functioning within proposed parameters; technical assistance is also provided. SEA findings and recommendations are disseminated to key personnel within one week after completion of site visits. The second group is a U.S. Office of Education review team which visits a random sample of Title I schools and functions much like the SEA team. Program data (program component descriptions, progress reports, etc.,) are prepared for each review team prior to the actual site visits. Reviews are initiated on a planned basis, at milestone points of the program and where requested by various authorities.

It appears that recommendations and suggestions from the review teams, based on document review and site visits, are disseminated both through documents and by word of mouth, and that this review and evaluation process leads to improvements in program operations. However, no structured management information system was found which either disseminates monitoring and review data to all personnel or provides internal monitoring data.

c. Personnel Management

Title I employees are governed by the D.C. Public Schools Personnel Department Policy, which was prepared by the Board of Education. There are no special employment standards or criteria used for hiring Title I personnel; the methods are traditional. Regular application forms and personnel interviews are used, with referrals coming from other employees and solicitation for suitable applicants made through advertising or agencies.

Job performance review forms are used to evaluate Title I staff performance. Promotion is based primarily on performance, training, and experience. Standard procedures exist for handling personnel recommendations, complaints, and charges of incompetence. Recommendations and complaints are handled by private discussion and/or printed suggestion sheet. Problems in performance are handled through dismissal, retaining, or reassignment.

d. Fiscal Management

Fiscal management practices, procedures, and policies are set forth in such written documents as Office of Education Guidelines, D.C. regulations, D.C. Department of Budget and Accounting Regulations, D.C. Public Schools and Department of Business requirements. In addition to written procedures specifying procurement and purchase of service policies, the Title I fiscal management system was designed to assure records of all expenditures, justification before purchases are authorized, advanced planning and correlation of all cash resources, and safeguards against unauthorized or excess payments. The system appears to be functioning properly.

Specified procedures are used for budgeting, but no records are available of the person-months devoted to such fiscal activities as budget preparation, accounting system operation, maintenance of budgetary controls, and procurement.

e. Overall Administration

Figure 6.2 shows the proposed and actual positions within Central

Figure 6.2 CENTRAL ADMINISTRATION PROPOSED AND ACTUAL STAFFING POSITIONS

Proposed	Actual
Executive Director	Executive Director
Coordinator for Instructional Services	Coordinator for Elementary Schools
	Coordinator for Secondary Schools
	Coordinator for Non-Public Schools Program
Coordinator for Staff Development	Coordinator for Staff Development
Coordinator for Auxiliary School Personnel	Coordinator for Auxiliary School Personnel
Coordinator for Cultural Enrichment	
Coordinator for Non-Instructional Support Services	
Coordinator for Parent Involvement	Coordinator for Parent Involvement
Assistant to Business and Personnel	Business Manager
Instructional Coordinator(for each cluster)	

Administration. The position of Coordinator for Instructional Services could be comparable to that of an Associate Director, who would assist the Director in program administration and coordination of program services. He would provide general supervision of all program components regardless of the particular level at which they were implemented (elementary, secondary, non-public school). In addition, each unit (elementary, secondary, and non-public) would have its own Coordinator position. This overall position never filled, although the individual unit coordinators were hired. In addition, several other proposed positions were vacant: Coordinator of Non-Instructional Support Services, Coordinator for Cultural Enrichment, Instructional Coordinator for Each Cluster.

Even had all proposed positions been filled, both the proposed and the actual FY 73 Central Administration staffing patterns are inadequate for achievement of stated program goals. Not only are administrative functions impaired by the small number of administrative personnel available to deliver field support and supervision, but the quality of services is also threatened. The need for additional supervisory personnel to provide field monitoring and assistance is clearly illustrates by Figure 6.3, showing number of Title I schools, size of the target and participating population, number of teachers and other personnel participating in various Title I programs, and total number of Title I personnel requiring support and supervision.

As Figure 6.3 shows, for example, nearly 750 classroom teachers are participating in special Title I reading or math programs; each

FIGURE 6.3 TITLE I PROGRAM SCOPE

(a) Number of Title I Schools

Elementary Schools	55
Junior High Schools	16
Non-Public Schools	9
Total No. Schools	80

(b) Size of the Target Population

Elementary Students	17,000
Junior High Students	4,000
Non-Public Students	1,000
Total No. Students	22,000

(c) Number of Elementary Classroom Teachers Participating In Special Instructional Programs

Special Reading Programs	519
Special Math Programs	226
Total No. Special Programs	745

(d) Size of the Title I Workforce Elementary Learning Centers

Reading & Math Teachers	134
Educational Aides	335
Program Assistants	40
Health Aides	28
Sub-total	537

(e) Personnel Requiring Program Support and Supervision (Elementary, Secondary, & Non-Public)

Classroom Teachers	745
Reading & Math Teachers	179
Educational Aides	28
Program Assistants	40
Total No. Personnel	992

(f) Secondary Learning Centers

Reading and Math Teachers	32
Educational Aides	48
Sub-total	80

(g) Non-Public Learning Centers

Reading and Math Teachers	13
Educational Aides	6
Sub-total	19

(h) Special Education Learning Centers

Teachers	15
Aides	17
Resource Teachers	1
Psychologist	1
Sub-total	34

(i) Pupil Personnel

Workers	42
Aides	42
Speech Therapist	14
Psychologist	7
Social Worker	7
Sub-total	112

Audio Visual

Other Camp Catoctin
Community Schools

needs help with the introduction and effective use of a new instructional program. In-classroom support is especially necessary, and can be provided only through some form of regular field supervision. In the absence of such personnel, Title I has placed additional duties and responsibilities upon the principals of these schools, requiring them to assure the inventory and distribution of materials, provide instructional leadership for the program, develop and maintain special staff development activities, supervise personnel, disseminate program information, and relay and receive materials and information. School administrators are already overburdened; these added responsibilities can pose a serious problem.

While the evaluation team found the Executive Director to be a strong and capable administrator, neither he nor his staff can reasonably expect to successfully manage a program of this magnitude without additional supervisory and support personnel.

6. Recommendations

The following recommendations are offered as a means of improving Central Administration performance and overall Title I program management.

1. All Title I personnel should receive proper program orientation, regardless of when they become staff members. Central Administration personnel should receive specific grounding in the guidelines and procedures for planning, monitoring, evaluation, and program administration.
2. The elementary, secondary, and non-public schools programs should be integrated under a single coordinator, with Associate Director status; present unit coordinators should be retained. This will provide needed coordination and relieve the Executive Director of some of his instructional program administrative responsibilities.

3. Improved field supervision--monitoring and assistance--should be provided for all Title I program components, through additional supervisory personnel assigned to Central Administration.

4. All major aspects of the Title I program should be brought together under a single Executive Director who would report directly to the Associate Superintendent for Instructional Services. In addition to the present components, this should include program development, assessment, and research.

5. The Department of Federal Programs should continue to monitor the program, with its primary function the insurance of compliance with federal regulations.

6. A planning and research associate should be appointed to the LEA, to conduct research related to the program and provide assistance in program planning and development.

7. A management information system should be developed and instituted, perhaps by the above planning and research associate.

8. An outside firm should be hired to provide management assistance, helping in the development of a management information system and in the training of Central Administration staff in specific planning, supervision, and monitoring functions.

B. PUBLIC ELEMENTARY SCHOOL PRINCIPALS' ASSESSMENTS

1. Summary

Fifty principals of public elementary schools which operate Title I programs were interviewed concerning the operation of Title I programs in their schools, the selection of Title I students, and the effectiveness of various Title I components and personnel. Responses indicated considerable involvement by principals in their schools Title I programs and a general belief that the programs were beneficial to the students. Specific suggestions for program improvements were made.

2. Purpose

Many Title I program components within D.C. Public Schools operate in the elementary schools. Principals of these schools were interviewed to determine their assessment of the Title I program, with emphasis upon how it operated in their schools.

3. Evaluation Methodology

A questionnaire was developed for use in personal interviews with 50 D.C. Public Schools elementary school principals in Title I schools. The instrument was developed to collect date on Title I students and programs in the elementary schools, including the principals' evaluation of Title I, with special emphasis upon the following components: (1) Parent Volunteer Corps; (2) Staff Development program; (3) Math and Reading programs, including their integration into the school's curriculum; and (4) Learning Center Special Education Component. Information was also collected concerning selection of Title I students.

4. Findings and Analysis

The 50 elementary school principals were asked about the length of their administrative experience. Data showed respondents had a mean of 4.9 years and a median of 3.9 years of experience as elementary school principals.

When asked how long Title I programs had been operating at their schools, they reported a mean of 2.9 years and a median of 19 years.

The elementary school principals were asked for the dates of the initiation of selected Title I Program activities in their schools during the 1972-73 school year. Table 6.1 provides this information.

TABLE 6.1 PERCENT OF ELEMENTARY SCHOOLS REPORTING INITIATION OF SELECTED TITLE I ACTIVITIES DURING SPECIFIC MONTHS (1972-73 School Year)

Activities	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March
Identified Title I Students	43.2	27.0	16.2	8.2	5.4	-	-(N=37)
Math and Reading Material Developed	16.7	41.6	33.3	2.8	2.8	2.8	-(N=36)
Obtained Staff	35.4	29.0	19.4	6.5	3.2	-	6.2(N=31)

a. Title I Student Enrollment and Selection

The principals were asked about numbers and selection of Title I children in their schools. Responses indicated there was an increase in the enrollment of the Title I identified students for the 1972-73 school year. These identified students were selected for the Title I Program based on the results from standardized tests. Mean and Median numbers of Title I students and the total school populations are presented in Table 6.2.

Information was requested concerning the grade levels of identified Title I students. As Table 6.3 shows, there was considerable variation by school. In some schools, virtually all students were Title I identified; in other schools, fewer than 15 percent participated in the program.

Recommendations were requested for changes in the present criteria for identifying students for the Title I Program. Of the 45 elementary school principals responding, 28 (62.2 percent) felt that there should be no change in the present criteria. Another 17 (37.8 percent) felt that there should be some changes in the student selection process. Recommended changes varied from identifying Title I students by income level only to including in the program all enrolled students from kindergarten through third grade.

TABLE 6.2 TOTAL STUDENT POPULATION AND CORRESPONDING TITLE I IDENTIFIED STUDENTS AT THE BEGINNING AND END OF THE 1972-1973 ACADEMIC YEAR IN 50 SELECTED ELEMENTARY SCHOOLS

Type of Student	Enrollment	
	Mean	Median
Total Population		
September 1972	660.9	639.7
May 1973	691.8	660.2
Net Change	+20.9	
Title I Identified Students		
September 1972	274.9	277.5
May 1973	312.2	299.3
Net Change	+37.3	

TABLE 6.3 HIGHEST AND LOWEST PERCENT OF IDENTIFIED STUDENTS IN THE TITLE I PROGRAM BY GRADE (50 Elementary Schools)

Grades	Highest Percent	Lowest Percent	Percent Difference
Kindergarten	100.0%	13.1%	86.9%
1	100.0	14.1	85.9
2	98.0	10.8	87.2
3	98.0	13.4	84.6

Principals were asked what should be the determining factor for a Title I student to participate in the program. Forty principals (30 percent) agreed that a combination of factors should be used, such as census data determination of low-income families and the achievement scores of the pupil. Four principals (8 percent) stated that the selection should be based only on census data determination of low-income families, and just one principal felt that the determining factor should be pupil achievement scores alone. One other principal felt that the educational level of parents should be a determining factor.

The elementary school principals were asked whether a new pupil would be assigned to fill the place of an identified student who leaves a Title I class. Twenty-one principals (47.7 percent) said yes, a new pupil would be assigned to the Title I Program. Twenty-three (52.3 percent) said no. There was no response to this question from six principals.

An assessment was requested of the handling of Title I identified transfer students in the D.C. elementary school system. Principals reported that notations were made on Title I identified transfer student records. If an identified student was transferring into a school, usually additional tests were administered. When he was transferring out of a school, the process used was to submit information on transfer cards going to the receiving school.

With respect to identified student grade-to-grade progression and program continuity for transfers, efforts were made fairly consistently to continue children in the same reading and math programs. Principals were asked about the changing of identified students from one competitive Reading Program to another in the event of a school changing its program configuration. Most principals who responded stated that this problem had not evidenced itself. Most did not reply to this question. The elementary school principals were asked whether the Title I Administration had given the schools Fiscal Year 1974 Guidelines for handling Title I transfer students. Table 6.4 illustrates the responses to this question.

b. Title I Staffing

Principals provided information concerning the specific types and average number of personnel utilized within a Title I school, as program instructional and support personnel. The average number per school, by category, is provided in Table 6.5 with specification as to number of full-time and part-time personnel.

As Table 6.5 shows, most schools had full-time Reading and Math Resource Teachers and Pupil Personnel Workers, while fewer than half the schools had full-time Staff Assistant. Health Aides and Speech Therapists were part-time in most schools. Only about half the schools had a Clinical Psychologist's services, and 22 of the 24 schools that did receive such services had them on a part-time basis. Other Title I personnel available to fewer than half the schools on any basis were Psychiatric Social Workers Pupil Personnel Aides. The table reflects the variations in Title I program scope in different schools.

TABLE 6.4 RESPONSES FROM PRINCIPALS REGARDING WHETHER THEY RECEIVED 1973 TITLE I GUIDELINES FOR SELECTED STUDENT POLICIES

Title I Policies Regardings	Percent Yes	No
Title I Students transferring into school	14.9	85.1
Title I Students transferring out of school	15.2	84.8
Grade-to-grade progression and program continuity	27.3	72.7

TABLE 6.5 AVERAGE NUMBER OF SPECIFIC CATEGORIES OF TITLE I STAFF IN SELECTED ELEMENTARY SCHOOLS

Type of Staff	Full-Time Mean *	Part-time Mean
Instructional Coordinator	1 (1)	1 (1)
Reading Resource Teacher	1.1 (45)	1 (1)
Math Resource Teacher	1 (44)	2 (2)
Pupil Personnel Worker	1 (32)	1.1 (17)
Pupil Personnel Aide	1	1.2 (11)
Staff Assistant	1 (21)	1.1 (13)
Health Aide	1 (9)	1 (35)
Clinical Psychologist	1 (2)	1 (22)
Psychiatric Social Worker	- (0)	1 (19)
Speech Therapist	1 (1)	1

* The numbers in parentheses specify numbers of schools having such personnel.

When asked whether Title I programs had resulted in a change in the number of teachers and other staff, 26 principals (53.1 percent) said the number of teachers and other staff had increased. Nine principals (18.4 percent) reported that numbers of staff had remained just about the same.

When asked on what basis teachers were assigned as Title I teachers, principals gave the following responses:

Basis	Number of Principals
No predetermined basis	20
Previous teaching experience	9
Stated teacher preference	7
Specialized training	4
Teachers who were already teaching identified students	4
All teachers in grade kindergarten through three	2

Responses from 33 elementary school principals indicated the kinds of in-service staff development training programs that had been carried out for their personnel with Title I monies.

The data indicated that half the schools had in-service staff development training programs. The schools said no in-service staff development training programs had been carried out with the Title I monies. The participating 25 principals listed extent of staff participation in various types of in-service programs. Table 6.6 shows the mean number of days various staff members spent in particular in-service education activities.

The elementary school principals were asked to evaluate the effectiveness of the service of specific categories of personnel. The staff members ranged from the Instructional Coordinator to the Speech Therapist. A summary of the principals' evaluation is shown in Table 6.7.

TABLE 6.6 MEAN NUMBER OF DAYS SPENT IN STAFF DEVELOPMENT ACTIVITIES BY VARIOUS TYPES OF TITLE I STAFF MEMBERS

Staff Positions	Number of Principals Responding											Mean Number of Days Spent in Activity by Various Types of Title I Staff Members										
	A	B	C	D	E	F	G	H	I	J	K	A	B	C	D	E	F	G	H	I	J	K
Instructional Coordinator	0	0	1	0	0	1	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0
Reading Resource Teacher	12	6	6	2	20	4	2	6	1	2	8	5	4	2	1	8	6	2	6	1	1	2
Math Resource Teacher	11	5	3	2	19	3	2	5	2	3	7	4	3	2	1	5	2	2	5	2	7	2
Teacher Aides	10	5	4	2	17	2	0	5	2	3	5	5	1	3	3	5	2	0	20	2	1	3
Pupil Personnel Worker	2	6	2	0	9	4	1	2	1	1	2	7	2	2	0	2	4	2	1	1	1	3
Pupil Personnel Aide	0	0	1	0	3	6	1	1	0	0	0	0	0	1	0	1	3	5	1	0	0	0
Staff Assistant	11	1	1	1	9	4	4	2	1	3	7	8	2	1	2	6	3	2	1	1	4	2
Health Aide	1	1	2	0	4	1	0	3	0	0	0	1	1	2	0	4	10	0	2	0	0	0
Clinical Psychologist	1	0	2	0	0	0	0	2	1	0	0	1	0	1	0	0	0	0	0	1	0	0
Psychiatric Social Worker	1	0	1	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	1	0	0	0
Speech Therapist	0	1	2	1	1	1	0	2	0	2	0	0	2	2	1	6	5	0	1	0	2	0
Secretary	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	2
Classroom Teacher	1	1	0	0	3	0	0	0	0	0	1	8	1	0	0	7	0	0	0	0	0	0
Parent Volunteer	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0

Key:
(A) Credit Courses
(B) Lectures
(C) Observation
(D) Role-Playing
(E) Workshops
(F) Conferences
(G) Seminars
(H) On-going program of continuous In-classroom Assistance
(I) Humanistic Lab (June 19-28, 1972)
(J) Pre-Training Workshop (June 28-July 28, 1972)
(K) Planning and Orientation (August 28-September 1, 1972)

TABLE 6.7 RATINGS OF TITLE I STAFF BY ELEMENTARY SCHOOL PRINCIPALS (Percent)

Type of Staff	RATINGS				
	VE	E	NVE	I	NA
Instructional Coordinator	10.7	3.6	3.6	-	82.1
Reading Resource Teacher	60.9	26.0	8.7	4.3	11.2
Math Resource Teacher	57.8	35.6	2.2	2.2	2.2
Pupil Personnel Worker	52.3	36.4	9.0	2.3	-
Staff Assistant	46.3	26.8	9.8	2.5	31.3
Health Aide	39.5	41.9	16.3	2.3	-
Clinical Psychologist	17.6	23.5	26.5	8.9	23.5
Psychiatric Social Worker	9.7	3.2	16.1	9.7	61.3
Speech Therapist	10.8	16.2	42.40	18.9	13.6

KEY: VE - Very Effective
E - Effective
NVE - Not very effective
I - Ineffective
NA - Not applicable

c. Parent Advisory Councils

Information was sought from the principals concerning whether their schools had functioning Title I Parent Advisory Councils (PAC's). Forty-seven principals responded to the question, and 93.6 percent said yes. The principals provided information concerning how they recruit PAC members. Based on these responses, it appears that 13 schools sent questionnaires to parents of identified Title I students asking for volunteers for the Council. Another 23 schools sent open letters, handbills, newsletters, and bulletins to all parents, and Council Members were chosen on a first-come basis. Twelve schools either elected or recruited parents for the Council or the school's counselors and Pupil Personnel Workers helped with final selections. Two schools said they specifically encouraged parents who had worked in the summer program to participate in the Parent Advisory Council.

The Title I Parent Advisory Council meetings for most schools were held once a month, although some schools held meetings bi-monthly or even just twice a year. Very few schools had totally inactive Councils.

d. Parent Volunteer Corps

Information was sought from the principals about the Parent Volunteer Corps (PVC), established to give parents the incentive and the opportunity to become involved in the educational process. Parents were paid $1.90 per hour while participating. The personnel for the corps were selected primarily through volunteers, principals reported. In addition, notices were sent to homes asking for volunteers. In a few schools, the PVC members were selected by the administration or by teachers. The data showed that one school attempted to select only unemployed parents. The majority of PVC members were parents of Title I identified students.

There were various systems for rotating the work schedule of the Title I Paid Volunteer Corps. Twenty elementary schools (40 percent) employed the system of rotating the parents weekly. Another 27 schools (54 percent) rotated the parents less often at fixed intervals. Three schools (6 percent) had a rotating system which depended greatly on the number of available parents volunteers. A mean of 11 parents per Title I elementary school participated in the Paid Volunteer Corps during the first semester of the 1972-73 school year.

The elementary school principals were asked their recommendations for the future of the Parent Volunteer Corps. The large majority believed the project should be continued and expanded, while a small number felt it should be scaled down, and two recommended it be phased out entirely. The few negative recommendations were presented with statements of concern such as a belief that the parents were more interested in earning the stipends than in helping the children. A summary of recommendations, by category of response, is provided in Table 6.8.

TABLE 6.8 RECOMMENDATION FOR PARENT VOLUNTEER CORPS' INVOLVEMENT IN THE TITLE I PROGRAM

Recommendations	Number of Schools	Percent of schools
Expand to include more participants	39	78
De-emphasized, include fewer participants	3	6
Phase out entirely	2	4
Other	6	12
	50	100

Forty-six principals responded to the question of how they would justify their recommendation concerning the inclusion of the PVC in the 1974 fiscal budget. The following are the responses:

Basis for Recommendation	Number of Principals Responding
Gives parents of Title I children a chance to gain skills to help their own children and understand Title I	6
More assistance is needed in the classrooms	10
Services are very useful	2
Allows more parents to participate in classroom program	6
Teachers find their help invaluable	2
Permits parents to work the full school year	1
Program greatly needed	2
Need for better communication between parents and instructional program	1

The duties and responsibilities of the participants in the Parent Volunteer Corps as reported by the principals, varied considerably. Program activities ranged from attending skilled workshops to chaperoning class trips. The types of reported involvement are shown in Table 6.9.

TABLE 6.9 ACTIVITIES OF TITLE I PARENT VOLUNTEER CORPS MEMBERS

Activities	Number of Schools	Percent of Schools
Participation in Skill Development Workshops	33	66
Classroom Aides	44	88
Tutoring Services	21	42
Teacher Aides	18	36
Extension of training via Staff Development	20	40
Answering telephones and serving as lunchroom aides	1	2

e. Reading and Math Programs

Information was obtained regarding the teacher/student ratio in each of the 50 schools involved in this evaluation. A mean ratio was calculated to show the average number of students who received instruction from one resource teacher. For the math and reading resource teachers the ratios were 1:32 and 1:36, respectively. The average amount of time spent in math and reading program instruction is shown in Table 6.10.

TABLE 6.10 AVERAGE AMOUNT OF INSTRUCTIONAL TIME FOR TITLE I IDENTIFIED STUDENTS PROVIDED BY THE MATH AND READING TEACHER IN SELECTED ELEMENTARY SCHOOLS

Type of Class	Mean Values
Reading	
Number of days per week	4.2 days
Number of minutes per day	41.0 minutes
Math	
Number of days per week	4.2 days
Number of minutes per day	43.4 minutes

The questionnaire obtained responses from 45 schools on the question: How do the Title I reading and mathematics resource teachers coordinate their work with the regular classroom teachers? Coordinating methods between Title I resource teachers and the regular classroom teacher are listed below:

Method of Coordination	Number of Schools (Out of 50)
Planning conferences	14
Separating the Title I identified students from regular classroom	16
Exchange of materials	3
Workshops	3
Observations of children	5
Observing lessons planned	1
Working with small groups	15
Discussing pupil's work and progress with teacher	17
Working with individuals	8
Scheduling students	4
Reinforcement by educational aide	1
Written reports	3
Testing for diagnosis and prognosis	3

f. Total Learning Centers

In the Title I Program, some schools have a Total Learning Center component. Each of the elementary school principals was asked if there was a Center in operation in his school. Thirty-four schools (72.3 percent) were reported to have a Total Learning Center. In the Center the types of competitive reading programs and the math programs are demonstrated in Table 6.11.

TABLE 6.11 TYPES OF READING PROGRAMS AND MATH PROGRAMS MOST FREQUENTLY USED IN THE TOTAL TITLE I LEARNING CENTER

Programs	Percent
Reading Program	
D.C. Heath	58
McGraw-Hill	74
Random House	38
Math Program	
D.C. Heath	55
Random House	6
McGraw-Hill	4
(N=49)	

Principals were asked whether the materials and methods used in the Total Learning Center component were effective for teaching Title I students reading and mathematics skills. The large majority of principals (92.3 percent) agreed that the present methods were effective.

However, the principals pointed out that all materials did not come to all the schools; thus, an adequate comparison could not be made. A few felt that book company textbooks were inadequate for children, and a few said that the competition materials were poor selections.

Asked about the tests used, 25 principals (58.1 percent of 43 respondents) agreed that the tests used to measure achievement gains were sensitive enough to detect all possible significant improvement in reading and mathematics by identified students; 18 principals (41.9 percent) did not agree. The tests used as for measurement of achievement in the D.C. Public School System were (1) Metropolitan Readiness Test, (2) California Achievement Test and (3) Comprehensive Test of Basic Skills.

Some specific comments were made about the tests. Some principals felt that (1) tests could not measure all components of growth, (2) tests were not geared to the underprivileged child's experience and (3) the formats of the tests were too difficult for the child to follow.

One question focused on the Mediax Program for developing identified students' perceptual skills as part of the Total Learning Center Component.

g. Special Education Component

When asked if the schools had a Title I Total Learning Center Special Education Component for exceptional children, six principals (12.8 percent) said yes and 41 (87.2 percent) said no. In some instances other Title I schools fed identified students into these six special education centers, but 44 principals reported that they had fed no identified students into the Title I Total Learning Center for Special Education. The remaining six schools did feed identified students into the centers. These schools were:

- Garrison
- Harrison
- Meyer
- Perry-Simmons
- Richardson
- Tyler

Principals were specifically asked whether their particular school was a feeder school for a Title I school equipped with such a center. Forty principals replied no. The other four said yes.

Would the inclusion of a Special Education Component have an effect on the overall achievement scores of Title I identified students? Thirty-one replied that the specialized component would result in more adequately meeting unique needs of some students. Other principals indicated the need to:

- Provide special tests geared to needs of children;
- Lower teacher/pupil ratio;
- Meet the needs of specialized school populations through Title I.

Ten principals felt that the inclusion of a Special Education Component would have a negative effect on the overall achievement scores of Title I identified students. Other negative responses were:

- Students are constantly being shifted from classroom resources to special education;
- Special education students do not show much gain.

Seven elementary school principals were neutral concerning the effect of a special education component on the overall achievement scores of Title I students.

h. Use of Self-Paced Goals

One of the questions concerned the Title I program emphasis on the development of basic skills in reading and mathematics through an individualized program with pupils proceeding at self-paced goals. It was found that 11 principals (25.6 percent) used the open classroom approach and 30 (69.8 percent) used the self-contained classroom approach in accomplishing self-paced goals.

In relation to such individualized program, principals were asked about a hardware (equipment) and software (methods) emphasis. Forty-two principals (89.4 percent) reported that emphasis was placed on both hardware and software. Only one principal placed emphasis only on hardware and two placed emphasis only on software in individualized programs. It was found that two schools did not use either software or hardware.

i. Career Development Component

Information was sought regarding the Title I Career Development Component in operation at the various elementary schools. Of the 50 responses, 14 principals (28.0 percent) reported that there was a Title I Career Development Component in operation at the school. The remaining 36 schools (72 percent) had no Title I Career Development Component. Table 6.12 shows the time of development and initiation of the Career Development Component.

TABLE 6.12 PERCENT OF ELEMENTARY SCHOOLS REPORTING INITIATION OF SELECTED ACTIVITIES IN THE TITLE I PROGRAM CAREER DEVELOPMENT COMPONENT DURING SPECIFIC MONTHS (1972 - 1973 School Year)

Activities	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	April
Identified Title I Students	27.3	45.5	9.1	18.1	-	-	-
Math and Reading Materials Developed	20.0	10.0	40.0	-	-	-	-
Obtained Staff	16.7	4.7	8.2	16.7	16.7	-	-

j. Indications of Program Effectiveness and Efficiency

One possible indication of Title I effectiveness is the proportion of Title I students who progress sufficiently to be placed back into the regular classroom situation. When the elementary school principals were asked what percentage of Title I identified students had returned regular classrooms, they reported that fewer than five percent were replaced in the classroom situation.

As school administrators, principals have a special concern with seeing that their Title I programs conform to federal and local regulations. Forty-nine principals responded to a question regarding their awareness of Title I regulations (U.S. Department of Health, Education and Welfare Regulations, Office of Education Guidelines, DCPS System Philosophy on Implementation) in order to effectively organize and carry out the program at their schools. Forty-two principals (85.7 percent) reported being aware of these regulations, and seven (14.3 percent) were not aware.

When asked if they felt that the concentration of Title I monies at the kindergarten through third-grade levels was the optimal allocation of funds, 38 principals (77.6 percent) said yes, and only six (12.4 percent) said no. Some respondents felt that more funds should be directed toward educational aides, proportioned by enrollment of identified Title I students or spent to provide more money for teachers. Forty-eight principals who responded to the question: "Should Title I monies be concentrated in the academic areas of reading and math?" felt that monies should be focused on these two basic skill areas.

Principals were asked how they participated in Title I decision-making; Table 6.13 provides responses. Nearly two-thirds (64.6 percent) felt they had a role in Title I allocations, 56.3 percent said they helped determine services to be provided, and 52.1 percent reported helping to decide what schools should provide specific Title I services.

TABLE 6.13 INPUT INTO DECISION MAKING POLICIES OF TITLE I PROGRAM

Issues	Percentile of Principals	
	YES	NO
Title I Allocations	64.6	35.4
Services Included in Title I Programs	56.3	43.7
Which Schools Provided Services	52.1	47.9
(N=48)		

When principals were asked to list, in order of preference, their three most positive experiences as a principal of a Title I school, the following were the most frequent responses:

	Number of Principals
Having more staff to help pupils..........	19
Having more equipment and materials	16
Exposing pupils to cultural activities ...	12

For the principals, the most significant experiences were:

Student progress and growth	8
Parental involvement	7
Cultural experience for identified students	5

In the study, several questions concentrated on the adequacy of the in-service training program. When asked if the in-service training was specifically useful for carrying out administrative responsibilities, 22 principals (52.4 percent) stated yes and 27 principals (47.6 percent) stated no. There was no response from eight principals. One part of the in-service training program was training activities in which the elementary school principals participated. Table 6.14 gives the principals' evaluation of their staff development experiences.

TABLE 6.14 THE TYPES OF ACTIVITIES AND DEGREE OF USEFULNESS IN TITLE I IN-SERVICE TRAINING FOR ELEMENTARY SCHOOL PRINCIPALS

Types of Training	Degree of Usefulness			
	No Help	Little Help	Some Help	Great Help
On the job training	-	-	75.0	25.0
Participation in workshops, conferences and seminars	3.8	3.8	76.9	15.5
Discussions on methods of dealing with specific problems	-	23.1	53.8	23.1

The elementary school principals were asked how adequate in-service training was in preparing them to do a more effective job. There was no response from 21 principals. Two principals (6.9 percent) replied that the Title I in-service training program had very adequately prepared them to do a more effective job. Another 18 (62.1 percent) said the program had adequately prepared them and five principals (17.2

percent) stated that Title I In-service Training Program had fairly adequately prepared them. Four (13.8 percent) stated that the in-service training program was not adequate in preparing them to do a more effective job.

When the elementary school principals were asked how they felt about working as a principal of a Title I School, a great majority said that they found it fairly satisfying. A few found it not very satisfying or dissatisfying.

In response to a request for suggestions concerning the conduct of future Title I evaluations, the following comments were made:

- Send evaluations early enough to avoid school closing activities	4
- Evaluation too long and complicated, should be part of program director's responsibility	4
- Principal should be allowed to interview and select personnel	2
- Specific tasks of evaluation should be explained at the beginning of school term	2

ELEMENTARY SCHOOLS - SUMMARY OF FINDINGS

During the academic school year 1972-1973, the total enrollment and the number of Title I students in the elementary schools increased substantially. Moreover, the mean number of Title I students was slightly more than one-half the size of the mean number of total students in the elementary school. For the 50 elementary schools that participated in this aspect of the evaluation, there was an average of 312 Title I students in the elementary schools at the end of the school year. In many of the schools, 100 percent of the students were active with the Title I program in the kindergarten. In general, as the grade level increased, the percent of Title I students decreased for the elementary schools.

Many of the elementary schools had nearly a full complement of Title I supportive and essential staff (essential staff are the math and reading resource teachers and the supportive staff are all other personnel). The reading and math resource teachers were mainly employed on a full-time basis with many of the supportive staff occupying part-time positions.

A large majority of the elementary schools had active Parent Advisory Councils (PACs). The method for selecting the PAC members and the Paid Volunteer Corps (PVC) membership varied greatly among the 50 elementary schools in this evaluation. The frequency of PAC meetings also was dissimilar among the elementary schools. The elementary schools for the most part had principals who stated that the volunteers in the PACs and PVCs were essential elements to the success experienced in their Title I Programs. Seventy-eight percent of them recommended that the PVC should be expanded to include more participants.

Many of the elementary schools did not complete important Title I activities until late in the school year. As late as January of the school year 1972-1973, some schools were in the process of (1) identifying Title I students, (2) obtaining reading and math materials and (3) acquiring Title I staff. Less than 50 percent of the reporting schools had completed all of the above activities during the month of September.

The majority of the elementary schools in this evaluation did not have a Title I Career Development Component. Among those 14 schools where the Career Development Components were in operation, most of them were fairly late in the year completing essential activities related to the Career Development Component.

Several questions were asked regarding the impact of the Title I Program on the staff in the elementary schools. More than 50 percent of the principals reported that the schools' staff had increased as a result of the Title I Program. Additionally, approximately 50 percent of the schools had staff involved in the in-service education program aspect of the Title I Program. Moreover, the principals cited many ways in which the math and reading resource teachers coordinated with the regular classroom teachers. The reading and math programs did interfere with the other subjects offered in most of the schools since students were taken away from other activities in order to focus upon math and reading skills.

More than 50 percent of the principals felt that they were involved in the decision-making process for major aspects of the Title I Program. However, many of the principals felt that the percent criteria for selecting Title I students should be revised; they were not involved in the decision regarding the criteria for the student selection.

There were three basic reading and math programs used in the elementary schools; namely, (1) D.C. Heath, (2) McGraw-Hill and (3) Random House. The McGraw-Hill program was the most frequently used reading program and the D.C. Heath program was the most frequently used math program among the elementary schools. More than 90 percent of the principals felt that the above materials were effective teaching aides. Additionally, more than 58 percent of the principals stated that the tests used to measure the achievement gains were sensitive enough to detect all possible significant improvement in reading and math skills of the students in the different programs.

Several procedures were used for transferring Title I students to other schools. Many of the schools send reports to the receiving schools when children are being transferred from one school to another. There was very little changing from one reading or math program to another when children were transferred from another school. More than 70 percent of all of the principals who responded on this item stated that they had not received guidelines for transferring Title I students from one school to another, or from grade-to-grade.

The Mediax Program, which was useful in developing students' perceptual skills was available in very few of the elementary schools. Most of the principals with the Mediax Program felt that it was effective.

Thirty-one of the 50 principals felt that the addition of a special education component would have a positive impact with respect to the achievement of Title I goals. Among the reasons why a few of the principals felt that the effect would be negative were: (1) the problem with shifting from one classroom to another for special education activities and (2) the alleged inability of the special education student to show gains.

A majority of the schools had specific criteria for the assignment of Title I teachers. Among the qualifications that were necessary were: previous experience and specialized training. However, no standard criteria were adhered to among the participating elementary schools for the hiring of Title I staff.

When all of the Title I staff in the elementary schools were rated for their effectiveness, the math and reading resource teachers received the highest ratings. The psychiatric social worker, clinical psychologist and speech therapist received the lowest ratings.

The main strengths of the Title I program as perceived by the elementary school principals centered around increased staff and materials. The cited weaknesses of the Title I Program included poor communications, too many meetings and late arriving materials.

RECOMMENDATIONS

The major recommendations made by the elementary school principals were:

a. Expansion of the Paid Volunteer Corps.

b. Parents should be permitted to work year round.

c. Better communications between parents and instructional programs.

d. Help parents to gain skills to assist their own children and help parents to understand the Title I Program.

e. More assistance in the classroom.

f. Allow parents to participate in the classroom program.

g. Title I monies should be more directed toward educational aides.

h. Title I monies should be proportional to enrollment of Title I students.

i. Teachers' salaries should be increased with Title I monies.

j. Title I monies should be spent on all 7 grades in the elementary schools.

k. Income levels should be one of the factors considered in the identification of Title I students.

l. Teachers and administrators should recommend children for the Title I Program.

m. Send the evaluations early enough to avoid the closing of school activities.

n. The evaluation is too long and complicated, should be part of the program director's responsibility.

o. The principals should be allowed to interview and select personnel.

p. The specific tasks of the evaluation should be explained at the beginning of the school term.

The recommendations of the consultant relative to ways for improving the Title I Program were:

a. Orientation sessions for all staff and faculty for the Title I Program should be held at least one month prior to the opening of schools.

b. All Title I staff should be hired at least one month prior to the opening of schools.

c. The Paid Volunteer Corps should be expanded and administered on a year-round basis.

d. All principals should have an effective decision-making role in establishing Title I policies and procedures.

e. Efforts should be exerted to standardize the selection of PVC and PAC members.

f. A high-level policy should be established regarding the placement of special education activities in the Title I Program. Every program should adhere to the agreed-upon policy.

g. All teachers should meet the same qualifications for the Title I Program.

h. Pre-tests and post-tests should be utilized to accurately measure the effectiveness of the Title I Program in relation to the improvement in reading and math skills.

i. Students should be involved in the evaluation of the Title I Program.

C. PUBLIC JUNIOR HIGH SCHOOL PRINCIPALS' ASSESSMENT

1. Summary

Fifteen principals of public junior high schools which operate Title I programs were interviewed concerning the operation of Title I programs in their schools, the selection of Title I students, and the effectiveness of various Title I components and personnel. The principals provided considerable information about the programs, and most indicated that the program was beneficial both in helping students and in increasing parental involvement. Specific suggestions for program improvements were made.

2. Purpose

Certain Title I components operate in the District of Columbia's junior high schools, primarily for the benefit of seventh grade students. Principals of these schools were interviewed to determine their assessment of the Title I program as it operated at the junior high school level, with emphasis on how it operated in their school.

3. Evaluation Methodology

A questionnaire was developed for use along with personal interviews with 15 D.C. Public Schools junior high school principals. The instrument was designed to provide a description and assessment of Title I, with specific attention to (1) Parent Volunteer Corps, (2) Staff Development program, (3) Math and Reading Programs, with emphasis upon their integration into the overall school curriculum, (4) Reinforcement Learning Center techniques and effectiveness, (5) cooperation among Title I junior high schools, and (6) student selection and transfer.

Principals were also asked to provide an overall assessment of program and personnel performance.

Data obtained through the formal interviews were analyzed both by computer and manually.

4. Findings and Analysis

a. Title I Student Enrollment and Student Selection

The 15 junior high school principals were asked about the number of students participating in Title I programs in their schools, with comparisons between enrollment at the beginning and at the end of the year. As Table 6.15 shows, average Title I enrollment increased during the year.

The principals provided information concerning how their Title I students were identified. Among the methods utilized for specific aspects of the Title I Program were:

a. Careers in Building Trades
    1. Reading level below the 50th percentile
b. Introduction to Building Trades
    1. Reading scores
    2. Principal selection
c. Widening Horizons
    1. Via a job orientation program
    2. An entire section was chosen
    3. Selection guidelines developed by the coordinator
d. Youth-Serving-Youth
    1. Selection was made from students who applied
    2. Reading scores coupled with principal selection.

TABLE 6.15 TOTAL STUDENT POPULATION AND CORRESPONDING TITLE I IDENTIFIED STUDENTS AT THE BEGINNING AND END OF THE 1972-1973 ACADEMIC YEAR IN 15 SELECTED PUBLIC JUNIOR HIGH SCHOOLS

Type of Student	Enrollment	
	Mean	Median
Total School Population		
September 1972	1035.8	1078.5
May 1973	1042.5	1105.0
Net Increase	6.7	
Title I Identified Students		
September 1972	226.8	185.7
May 1973	250.1	216.5
Net Increase	23.3	

Questions were asked regarding how Title I students should be selected. Three of the principals stated that the pupils should be selected on the basis of pupil achievement scores, 11 felt it should be a combination of pupil achievement scores and census data determination of low-income families, and one principal did not reply to the item.

When asked if they had any specific recommendations for changing the present criteria for identifying Title I students, four principals replied affirmatively. One point that was raised regarding the selection criteria centered around the confusion with respect to whether a student had to score below 50th percentile on the reading and math tests. The respondent desired a more precise definition of the standard.

Principals were asked about Title I student transfers and continuity. None of the 15 public junior high schools in this evaluation reported receiving identified Title I students from feeder elementary schools; however, 14 schools said they were feeder schools. When asked if certain guidelines were received from the Title I Administration, more than 90 percent of the principals stated that they had received guidelines regarding: (1) the transferring of Title I students in and out of their school and (2) grade-to-grade identified student progression and program continuity.

b. Title I Staffing

The size and categories of staff hired for the Title I program varied among the 15 public junior high schools. All schools did not have available all types of personnel; however, every school did have at least one full-time Reading Resource Teacher and one full-time Math Resource Teacher. None of these schools had a full-time Title I health aide; however, 14 schools had an average of three part-time health aides.

Table 6.16 shows the type and average number of Title I staff in the junior high schools. When a school did not have a particular category of staff, it was not included in the calculation of the average staff strength. The number of schools with each type of personnel is shown in parentheses.

When asked if the total number of teachers and staff in their schools had changed after Title I was initiated, the principals responded in the following manner:

a. 5 stated that the faculty and/or staff increased;

b. 1 stated that the faculty and/or staff decreased;

c. 9 stated that their personnel strength remained the same.

Principals were asked what approaches should be used in the assignment of Title I teachers. Responses varied widely. Four of the principals felt that Title I teacher assignments should be on the basis of stated teacher preferences, two felt that Title I teachers should have specialized training, two stated that previous teaching experience should be a factor, two said no predetermined basis should be used, and two did not respond to this question.

The principals were asked to rate each type of Title I staff member with respect to how effective they were in meeting the needs of the students. Table 6.17 shows the results. (Only the percentages of these principals who responded are shown.)

TABLE 6.16 AVERAGE NUMBER OF TITLE I STAFF IN THE SELECTED PUBLIC JUNIOR HIGH SCHOOL

Type of Staff	Full-time	Part-time
Instructional Coordination	1.0 (1)*	2.5 (13)
Reading Resource Teacher	1.3 (10)	1.0 (15)
Math Resource Teacher	1.0 (6)	1.8 (15)
Pupil Personnel Worker	1.0 (8)	1.9 (13)
Pupil Personnel Aide	1.1 (8)	2.0 (14)
Staff Assistant	1.0 (1)	2.8 (13)
Health Aide	- (0)	3 (14)
Clinical Psychologist	1.0 (3)	2.5 (12)
Psychiatric Social Worker	1.0 (6)	2.3 (11)
Speech Therapist	1.0 (3)	2.6 (13)

* The number in parentheses indicates the number of schools which had the specific category of staff.

TABLE 6.17 RATINGS OF TITLE I STAFF BY PUBLIC JUNIOR HIGH SCHOOL PRINCIPALS

Type of Title I Staff	Percent of Principals Selecting Rating				
	VE	E	NVE	I	NA
Instructional Coordinator	33.3	33.3	11.1	11.1	11.1
Reading Resource Teacher	61.5	31.8	7.7	-	-
Math Resource Teacher	36.5	27.3	9.1	-	-
Pupil Personnel Worker	50.0	33.3	16.7	-	-
Pupil Personnel Aide	12.5	-	-	-	87.5
Staff Assistant	-	-	-	-	100.0
Health Aide	9.0	18.2	36.4	-	36.4
Clinical Psychologist	-	22.2	44.5	-	33.3
Psychiatric Social Worker	12.5	~~12.5~~	25.0	25.0	25.0
Speech Therapist	28.6	42.8	-	-	28.6

Key: VE = Very Effective
I = Ineffective
NVE = Not very Effective
E = Effective
NA = Not Applicable

c. Parent Participation (PAC and PVC)

The Title I Program guidelines require that parents of the identified students participate in the programs' decision-making process. A Parent Advisory Council is to be associated with each Title I school and function as an autonomous and separate body as distinguished from the PTA. Of the 15 public junior high school principals, 14 (93.3 percent) said their schools had an active PAC. Most of the PAC's met monthly, and nearly all were comprised of parents of Title I students. Some of the principals indicated that parents of non-Title I students were also eligible to be PAC members.

The Parent Volunteer Corps (PVC) is another parent group associated with the Title I Program; parents receive financial remuneration for their participation in the instructional process. Thirteen (86.7 percent) of the 15 public junior high schools had parent volunteers. The number of PVC participants per school ranged from one to nine, with a mean of four. Most parents volunteered for the PVC; however, some schools requested participation in letters sent home through the students. Many types of activities were performed by the parents; following is a listing of activities and the number of schools in which each was performed.

Activities	Number of Public Junior High Schools Where Activity was Performed
Cafeteria and Hall Monitor	2
Cafeteria and/or Attendance Aides	4
Supervision of Students on Trips	2

Conferences with Parents Regarding Program	3
Attending City-wide Advisory Council Meeting	1
Working with Pupil Personnel Team	1
Fund Raising	1
Attending School Meetings	2

PVC participation remained fairly constant in the public junior high schools. Of the 15 schools, 13 (86.7 percent) did not rotate their membership; therefore, there was little access to the PVC's for other community residents. Some schools stated that different parents were able to become involved, depending mainly upon availability of openings.

The public junior high school principals were asked to make recommendations for the PVC in FY 74. Fourteen (93.3 percent) stated that the PVC's should be expanded to include more participants. One respondent stated that the participating parent's talents should be utilized to a greater extent. When the respondents expanded upon their recommendations, the following comments were made: (1) the parents should begin activities at the inception of the Title I Program in the fall; (2) the PVC's are needed to help increase the staff; (3) the parents help the aides to curb discipline problems, and (4) the PVC's expand the activities of the reading and math classes.

d. Reading and Math Programs

Information was gathered concerning the amount of time Title I students spent in the reading and math classes provided as part of the Title I Program. Table 6.18 displays the pertinent data.

TABLE 6.18 AVERAGE AMOUNT OF TIME SPENT IN TITLE I READING AND MATH CLASSES BY JUNIOR HIGH SCHOOL STUDENTS

Type of Class	Mean Values
Reading	
Number of Days Per Week	4.5 days
Number of Minutes Per Day	48.6 minutes
Math	
Number of Days Per Week	4.2 days
Number of Minutes Per Day	47.0 minutes

Student/teacher ratios for these classes were explored. In both cases, average ratios were very low, and considerable individual instruction was therefore feasible. In the math classes, the ratio was 6:1, while in the Reading classes, it was just 3:1.

When asked if the reading mathematics resource teachers coordinated their work with the regular classroom teacher, many principals indicated that there was coordination through team teaching, cooperative planning, and conferences. The few negative responses included (1) the lack of planning time, (2) the interruption of other classes when students are taken out, and (3) the problem of teachers with limited coordination skills. With respect to the types of classes from which students were taken in order to attend reading and math Title I activities, all kinds of classes were apparently involved in many of the schools. Among them were: (1) science, (2) music, (3) physical education, (4) social studies, (5) biology and (6) art.

e. Secondary Reinforcement Learning Centers

Principals were questioned about Secondary Reinforcement Learning Center (SRLC); they indicated that such Centers were operating in 10 of the 15 public junior high schools studied. Nine of the principals felt the SRLC materials and methods were effective in teaching the identified students. When asked how close the SRLC was to being fully operational, the responses ranged from 75 to 100 percent.

The principals were asked their opinions regarding the adequacy of the prescriptive reading test, the prescriptive math test and the comprehensive test of basic skills, relative to their sensitivity in detecting student achievement gains. Nine of the 15 principals replied that the tests were adequate. One principal indicated that the tests were effective as indicators only, and another felt that results could be obtained quicker when informal teacher-made tests were utilized.

Actually, the results of the prescriptive reading and math tests were given only after the Title I experience; therefore, pretest scores are not available for gain score testing. Data relative to the prescriptive reading and math tests are not included in this analysis since there is no baseline for comparison and interpretation.

The Mediax and the Education Development Laboratory (EDL) were two distinct programs used in the Title I public junior high schools to facilitate learning. The schools incorporated these programs into the SRLC in various ways. Some incorporated the programs through the Reading Resource Teacher. Others utilized the adjuncts as a major program component. Two schools reported that they had Mediax software available, but no use of it was made by resource teachers. With respect to the eight principals who assessed the effectiveness of Mediax and/or EDL, three stated it was very effective, two stated it was moderately effective, two said it was effective and one said it was not very effective.

f. Special Education Component

Information regarding the special education component was requested from the principals. Only one of the principals reported having a Title I Total Learning Center for Exceptional Students. When asked their opinions regarding the effect a Special Education Component might have on the overall achievement scores of Title I identified students, seven principals stated that they felt a positive impact would result and four felt the effect would be negative. Four principals did not respond to this item.

g. Use of Self-Paced Goals

Self-paced goals have been felt by authorities to facilitate learning. This evaluation asked how the Title I program in various schools used this concept. The principals were asked their opinions regarding the type of classroom approach that enhances the accomplishment of self-paced goals. Of the 13 principals responding, 11 favored the self-contained classroom approach and two felt that the open-classroom approach was more effective. The principals were also asked whether hardware (equipment) or software (method) should have more emphasis when self-paced goals are to be met. Two principals felt software should have more emphasis, 12 stated that both software and hardware should be stressed, and one stated neither should be emphasized.

h. Indicators of Program Effectiveness and Efficiency

One of the measures of success in the Title I Program is the placement of identified Title I students back into the regular classroom situation. The public junior high school principals were asked what percentage of the identified students were transferred back to the regular classroom. Table 6.19 shows the results.

In order for any program to be effectively implemented, the administrator must be informed about its operations. This evaluation ascertained the availability of information to the public junior high school principals. Of the 15 principals, nine were satisfied with the amount of Title I information they received and six (40.0 percent)stated that they did not receive the necessary information to effectively organize and implement the Title I Program.

TABLE 6.19 PERCENT OF TITLE I STUDENTS RETURNED TO THE REGULAR CLASSROOM

Percent of Title I Students Returned to the Regular Classroom	Number of Principals Responding	Percent of Principals
1	1	8
2	1	8
9	1	8
10	1	8
20	2	16
40	3	25
50	1	8
100	2	16

The principals were asked about the adequacy of their in-service training. Of the 15 principals, eight stated that they had received in-service training, five said they had not, and two did not respond. Each of the principals who participated in in-service education was asked to rate the adequacy of the experience in helping him to do a better job. For the three specific types of training available in in-service education, see Table 6.20.

The public junior high school principals were asked if they were involved in the decision-making process relative to specific aspects of the Title I Program. Below are the responses for the various types of decisions queried:

Decision Type	Percent Who Reported Making Input
How Title I Money was Spent	60.0
What Programs or Services were Included in the Title I Program	46.7
What Children Receive the Benefits of the Title I Program	46.7

The principals were asked for their opinions regarding the allocation of Title I funds. Eleven of the 15 principals stated the funds should be concentrated at the seventh grade level; however, over one-fourth felt that a different allocation should be instituted. Among the alternative methods suggested were:

a. Title I should extend beyond the seventh grade;

b. There should be a follow-through service;

c. The program should serve all students in need;

d. Monies should go to the most academically deficient students in all three grade levels.

TABLE 6.20 RATINGS OF IN-SERVICE EDUCATION TRAINING BY PUBLIC JUNIOR HIGH SCHOOL PRINCIPALS

In-service Training Area	Percent of Principals Selecting Rating			
	NH	LH	SH	GH
On the job training	-	-	-	-
Participation in workshops, conferences and seminars	-	20.0	50.0	30.0
Discussions on methods of dealing with specific problems	-	12.5	75.0	12.5

Key: NH = No Help LH = Little Help
GH = Great Help SH = Some Help

All the public junior high school principals stated that Title I monies should be concentrated in the reading and math programs. Despite the unanimous response to spending the Title I monies for reading and math reinforcement, the following additional recommendations were suggested:

a. The schools should spend the money according to its particular needs;

b. A career development component should be added at the eighth grade;

c. There should be a work study program in the ninth grade.

Each principal was given the opportunity to list (1) three things he liked most about his experience as a Title I school principal, (2) the three things he liked least, and (3) the three most significant experiences with respect to the Title I Program. The most frequently occurring items for the three areas were:

A. Things Liked Most

1. Received more supplies and equipment;
2. Potential student improvement;
3. More interaction with parents.

B. Things Liked Least

1. Supply and equipment problems;
2. Lack of internal guidelines;
3. Insufficient staff;
4. Excessive meetings;
5. Lack of support services.

C. Most Significant Experiences

1. Student involvement;
2. Extra help given to students and parents;
3. Parental Involvement.

An overall assessment of the Title I Program was obtained from the principals. Five reported that they found working as a Title I school principal very satisfying, six stated that their experience was fairly satisfying, and four did not respond.

Each principal was asked to list suggestions regarding the Title I Evaluation. Most of the principals misinterpreted the item and apparently felt the evaluators were asking for ways they felt the Title I Program could be improved. However, one principal stated that he felt unannounced inspections would be beneficial.

PUBLIC JUNIOR HIGH SCHOOLS FINDINGS

The number of Title I students in the public junior high schools substantially increased during the course of the academic school year 1972-1973. Moreover, the mean total enrollment for the same period showed less of a net increase than did the mean of the Title I students; the net increases were 6.7 and 23.3 respectively. Along with this increase in the number of students was an increase in staff positions in the schools. Most of the schools had a full staff complement of Title I supportive and essential staff (essential staff are defined as the math and reading resource teachers whereas the supportive staff are all other types of staff) to service the increased enrollment in the public junior high schools.

Of the 15 principals who participated in the evaluation, 14 reported that there were active Paid Volunteer Corpos (PVCs) in their schools. Consistent with the findings in the elementary schools, there was no standard method for selecting members of the PVCs among the various schools. Most frequently, the members of the PVC volunteered for membership in the public junior high schools. The principals felt that the PVCs were very effective in assisting them to accomplish Title I goals. All of the principals of schools that contained PVCs recommended that they be expanded in the coming years.

The evaluation assessed a variety of ways in which the Title I Program impacted on the regular staff and activities of the public junior high schools. For most junior high schools, the staff strength remained the same during the time that the Title I Program was operational. Moreover, most of the principals reported that Title I students were taken from a variety of classes in order to participate in the math and reading programs. Unlike the regular classroom setting, the teacher/student ratios were quite low for the Title I math and reading classes, 1:6 and 1:3 respectively.

The extent to which the principals received adequate Title I guidelines and their role in the decision-making process were ascertained. Of the 15 principals, only 9 were satisfied with the amount of Title I information they received. With regard to student transfers, 13 principals stated that they had Title I guidelines for student transfer procedures. Moreover, several took issue with the manner in which the Title I monies were expended. When asked if they had input into decision-making activities, 60 percent of the principals reported having input regarding how Title I money was spent, 47 percent had input regarding the programs or services to be offered and 47 percent were involved in determining what children should receive Title I benefits.

Only a few of the principals were satisfied with the guidelines regarding the method for selecting the Title I students.

Ten of the schools contained Secondary Reinforcement Learning Centers (SRLCs). Nine of the 10 principals reported that they felt that the SRLC materials were effective in teaching the Title I students. At the time of this evaluation, the majority of the SRLCs were at least 75 percent operational.

The opinion regarding the effectiveness of the Mediax and EDL Programs was obtained from the public junior high school principals. Of the 8 principals who responded to this issue, 3 felt that the programs were very effective, 2 stated that they were moderately effective, 2 replied that they were effective and 1 stated that they were not very effective. Overall, the opinion was quite favorable.

The issue of special education was an aspect of the evaluation. Four principals felt that the inclusion of special education in the Title I Program would have an overall negative effect, whereas, 7 principals felt positive results would be obtained. Only 1 principal stated that his school contained a Title I Total Learning Center for Exceptional Children.

All principals were to be recipients of in-service education through the Title I Program. Only 8 of the principals reported that they had participated in in-service activities. Most of the participating principals felt that the in-service education that they received was quite beneficial.

More than half of the principals reported that there were less than 20 percent of the Title I students returned to the regular classroom as a result of improvement. Among the 12 principals who responded to this item, 2 reported that all of their Title I students had returned to the regular classroom.

As was the case with the elementary schools, there was no standard criteria used for the selection of Title I teachers among the various junior high schools. Some of the junior high school principals felt that Title I teachers should have specialized training or previous experience.

When the public junior high school principals rated the performance of different types of Title I staff, the reading resource teacher, pupil personnel worker and the math resource teacher received the highest ratings in that order of priority. The clinical psychologist, health aide and psychiatric social worker received the lowest ratings.

An overall assessment of the Title I Program was made by the public junior high school principals. The weaknesses of the Title I Program as reported by the principals mainly involved inadequate supplies and staff and insufficient guidelines. The strengths of the Program as perceived by the principals included more involvement with the parents, increased student potential and additional supplies and equipment.

RECOMMENDATIONS

The major recommendations made by the public junior high school principals in the evaluation were:

a. The Title I Program should extend beyond the 7th grade.

b. There should be a follow-through service.

c. The Program should serve all students in need.

d. Monies should go to the most academically deficient students in all three grade levels.

e. Each school should spend the Title I money according to its particular needs.

f. A career development component should be added at the 8th grade.

g. There should be a work study program in the 9th grade.

h. The guidelines regarding the Title I selection criteria for students should be made more specific.

i. Informal teacher-made tests should be used in evaluating the progress of Title I students.

j. Title I student selection should be based on a combination of pupil achievement scores and census data.

k. Unannounced inspections would be a beneficial method for the Title I evaluation.

The consultant recommends the following as possible means for the improvement of the Title I Program in the public junior high schools:

a. Early hiring of Title I staff and early identification of Title I students.

b. There should be an orientation session of Title I staff and principals prior to the opening of school.

c. A specialist(s) should be consulted for the development of special tests to measure the effectiveness of the Title I Program as its relates to the improvement of math and reading skills.

d. The selection of Title I teachers should be standardized for all public and non-public junior high schools.

e. The Title I Program should include all students in the junior high school in need of the special services.

f. Students should be involved in the evaluation of the Title I Program.

D. NON-PUBLIC JUNIOR HIGH SCHOOLS PRINCIPALS'ASSESSMENT

1. Summary

Because the Title I Program operates on a different level in the non-public schools, questionnaires were administered to seven principals of non-public junior high schools with Title I programs. The programs are generally less extensive in the non-public schools, and the principals stated a need for more services. Summary information was obtained about key Title I components in these non-public schools, pupil selection processes, and program and staff effectiveness.

2. Purpose

One of the questionnaires administered as part of the Title I Evaluation involved an assessment of the program as it operated in non-public junior high schools. Several differences existed between the Title I programs in the public and non-public sectors. One major difference was the lack of the Parent Volunteer Corps (PVC's) in the non-public junior high school. This difference seems quite important inasmuch as the public junior high school principals indicated that the volunteer parents enhanced considerably the effectiveness of the Title I Program in their respective schools. Additionally, the level of staff availability was less for the non-public junior high schools.

3. Evaluation Methodology

In order to provide an assessment of the Title I Program in the non-public junior high schools, the principals of seven non-public schools were asked to respond to a questionnaire that contained most of the items in the public junior high school questionnaire. Formal comparisons between the responses of the two types of junior high schools was not made because of the definite differences that existed, informal comparisons are included in the narrative.

4. Findings and Analysis

Several questions were asked to obtain background information relative to the principals and the non-public junior high schools. Each of the seven principals was asked the number of years he or she had served as principal. The average for the group was 3.7 years. Additionally, each principals was asked to record the number of years that his school had been designated as a Title I School the mean was 5.3 years.

a. Title I Student Enrollment and Selection

Unlike the public junior high schools, the enrollment in the non-public junior high schools decreased from September 1972 to May 1973. Moreover, there was a very slight increase in the number of Title I identified students during that period. Table 6.21 shows the change in the enrollment in the non-public junior high schools.

Each principal was asked his opinion concerning how the Title I students should be identified. Two of the principals felt that the students should be identified on the basis of pupil achievement scores, three preferred a combination of census data and pupil achievement scores, and two did not respond.

Of the seven principals, two stated that new pupils were assigned to fill a space of a child who left a Title I class. When asked the method by which such selections were made, the principals stated either that no predetermined basis existed or that decisions were based on low achievement scores.

The impact of the Title I Program with respect to the number of staff members was asked. Four of the principals stated that the number of teachers and other staff members increased as a result of the Title I Program. However, three of the principals stated that the teaching staff and other staff members decreased after the Title I Program was brought to their school.

With respect to criteria for teacher assignments to Title I Program activities, three principals stated that specialized training was required for the teachers, and one stated that previous teaching experience was one of the prerequisites to Title I teacher assignment.

The non-public junior high school principals were asked to rate the Title I Staff with respect to their effectiveness in terms of meeting the needs of the identified students. An overall assessment resulted in the following ranking, with Rank I being the most effective. The ranking shows that the math resource teachers were considered the most effective although they were in all cases assigned to the schools only part-time.

Title I Staff	Rank order of Effectiveness
Math Resource Teacher	1
Reading Resource Teacher	2
Pupil Personnel Worker	2
Speech Therapist	3
Instructional Coordinator	4
Clinical Psychologist	5
Psychiatric Social Worker	6

c. Instructional Components

In order to gain some insight into when the various components of the Title I Program were initiated, each principal was asked to report the month that his school established certain activities. The following information reports the results:

Title I Activity	Number of Schools Reporting Certain Beginning Months (School year 1972-73)				
	Sept.	Oct.	Nov.	Dec.	N.R.
Fall 1972 Identified Students Lists from 50% Criteria Available	1	2	1	1	2
Reading and Math Program Materials and Supplies Available	0	1	2	0	4
Complete Staff (Support and Teaching)	1	3	2	0	1

N.R. = Not Reporting

Two questions were asked regarding the amount of time math and reading resource personnel spent with the individual students. With respect to the Reading Resource Teachers, there was an average of three days per week spent on direct services to Title I identified students, an average of 38.3 minutes per day for each student. The math teachers spent an average of 2.3 days per week at the school and an average of 38.7 minutes per day with each Title I identified student.

The pupil:teacher ratio for the reading and math resource teachers was somewhat higher in the non-public junior high schools than in the public junior high schools, although individual instruction was possible, particularly for reading students. For the reading classes there was a pupil:teacher ratio of 5:1 the ratio was 12:1 for the math classes.

TABLE 6.21 STUDENT AND TITLE I STUDENT ENROLLMENT OF SEVEN SELECTED NON-PUBLIC JUNIOR HIGH SCHOOLS FROM September 1972 to May 1973

Type of Student	Mean	Median
Total Population, September 1972	313.7	288.8
Total Population, May 1973	308.1	282.0
Net Change	-5.6	
Title I Students, September 1972	155.6	154.0
Title I Students, May 1973	155.8	154.0
Net Change	+0.2	

Forty-five percent of the students in the seven non-public junior high schools were identified as Title I eligibles. When each grade was analyzed separately in the seven schools, it was found that a minimum of 15 percent of the children were identified as Title I students.

The issue of student transfers was another area of concern in this evaluation. Most of the schools sent student records to the schools to which the students were transferred. With respect to identifying grade-to-grade progression, one of the schools checked for the progress at periodic intervals during the school year, whereas another school checked on the progress on an annual basis. No non-public junior high school reported having information regarding students transferred into their school or out of their school.

b. Title I Personnel

The principals reported the number of full-time and part-time Title I staff members in each of the non-public junior high schools. The following categories of Title I school positions were not reported as being available in any of the seven schools: (1) pupil personnel aide, (2) health aides and (3) Title I Staff Assistant. Of the positions that were represented, the following staff strength was present (The number in the parentheses represents the number of schools that had the particular types of positions):

Title I Positions	Average Number	
	Full-time	Part-time
Instructional Coordinator	$2^{(2)}$	-
Reading Resource Teacher	$6^{(6)}$	-
Math Resource Teacher	-	$5^{(6)}$
Pupil Personnel Worker	$1^{(1)}$	$4^{(6)}$
Clinical Psychologist	-	$3^{(3)}$
Psychiatric Social Worker	-	$2^{(2)}$
Speech Therapist	-	$6^{(6)}$

When asked how the reading and mathematics resource teachers coordinated their work with the regular classroom teacher, the principals gave the following responses:

> "Through conferences and planning materials and skills to be covered."
>
> "Programs and plans coordinated by individual resource persons and classroom teachers to teach pupils in situations removed from classrooms."
>
> "This type of coordination is not very effective at this time. Teachers and Title I staff need to talk about the weaknesses and what each is doing. Both groups are too independent of each other."
>
> "Not too well. Teachers really do not have free periods during the day. Title I teachers do not arrive until after the school day begins and it seems they do not stay around after dismissal. It has also not been convenient for them to come to our weekly Friday faculty meetings. Some teachers see them in between time and discuss children's strengths and weaknesses."

No non-public junior high school was feeder school for special education. Moreover, when asked if they felt the inclusion of a special education component would have a negative or positive effect on the overall achievement scores of Title I identified students, one principal stated that the student with a 70 IQ needs a very personalized learning situation, and another principal said that because of the program structure and physical limitations, they could not adequately meet the needs of students with special problems.

How self-paced goals should be met was a subject of interest in this evaluation. One of the principals felt that the self-paced goals were best achieved in an open-classroom situation whereas three of the principals felt that self-contained classroom approaches were more effective. Four principals said that hardware (equipment) and software (method) were equally important in the accomplishment of self-paced goals.

d. In-Service Training

Most of the non-public junior high school principals did not respond to the questions regarding in-service training the staff had received and its value to them. However, one respondent stated that the in-service training was very unsatisfactory, and another stated that he could not evaluate its effectiveness inasmuch as it was obtained elsewhere. The one principal who responded to the item that asked for specific information regarding the in-service education program for all Title I personnel stated that the Resource Reading Teacher, Math Resource Teacher, and pupil Personnel Workers participated in (a) workshops, (b) conferences, (c) seminars, (d) on-going programs of continuous in-classroom assistance, (e) pretraining workshops, and (f) planning and orientation sessions.

When the principals were asked if they themselves had received in-service training, two stated that they had participated in such activities. The two stated that they were involved in workshops, conferences, seminars, and discussions on methods of dealing with specific problems. When asked how adequately their in-service education had prepared them to do their job, one principal stated very adequately and the other replied adequately.

e. Indications of Program Effectiveness and Efficiency

When asked the percent of Title I identified students who had been replaced in the regular classroom, four of the principals stated none, two stated five percent, and one stated ten percent. (This measure is felt to be a rather gross index of the success of the Title I program and is not viewed as an absolute measure of program success.)

Principals were asked if they had available the necessary information about Title I in order to effectively organize and carry out the program in their school. Five principals responded affirmatively, one stated that he did not have sufficient guidelines, and one principal did not respond.

When asked if they would change the criteria for spending Title I funds, five principals stated they would like the criteria changed and 2 principals were satisfied with the manner in which it was presently being done.

Each principal was asked how he would recommend spending the Title I monies. The following responses:

When asked to list the three things they liked most about their Title I experiences, the principals gave the following responses listed in order of decreasing frequency:

1. Supplementary materials;
2. Services of experts in the resources field;
3. Sharing experiences with public school personnel;
4. The ability to request aid for educationally deprived children.

The least liked experiences were numerous, and the majority of them were cited only once; the first experience was the only one with two principals selecting the area.

1. Cut in staff;
2. Uncertainty of program;
3. Inability to select staff;
4. Not being considered on same terms as public schools;
5. Not knowing of meetings;
6. No voice in total operation;
7. Chairman always late for meetings;
8. Lack of response on complaints;
9. No secretarial assistance to help keep up with the demands of the program;
10. Weak communications.

When asked their most significant experiences in the Title I Program, the principals provided the following responses:

1. Participating in the program;
2. Conferences;
3. In-service training.

were offered: (1) The non-public schools should be included in the concentration, (2) The program should be more comprehensive, (3) Reading could be taught through science, and (4) There should be adequate staff for each school. When asked if they were involved in the Title I decision-making process, the following number of principals responded affirmatively specific areas of interest:

Decision-making Area	Number of Principals Involved
How Title I monies are spent	4
What programs or services are included in Title I programs	6
Who gets Title I services at his school	3

When asked how they liked working as a principal of a Title I school, one principal stated that he found the experience very satisfying, two stated fairly satisfying, and four did not reply.

The following suggestions were made for program improvement in the future years of the Title I program:

- Reading and math personnel should be assigned in mid-August, so they can meet the principal and teachers;
- Planning sessions in mid-August;
- Not get intangled in church vs. state, and
- The school should select the staff.

NON-PUBLIC JUNIOR HIGH SCHOOLS FINDINGS

The most dominating characteristic of the evaluation of the Title I Program in the non-public junior high schools was the wide discrepancy that existed between the public and non-public Title I Programs. For many of the indices, the non-public junior high schools fared worse than the public junior high schools.

The Paid Volunteer Corps (PVC), which was felt to be very effective in the public junior high school Title I Program was not available to the non-public junior high schools. Only one of the 7 non-public junior high school principals who participated in this aspect of the Title I evaluation reported that his school used parent volunteers.

No non-public junior high school principals stated that the following types of supportive Title I staff were available: health aides, pupil personnel aides and staff assistants, despite the fact that these types of positions were utilized in the public junior high schools. Additionally, most of the other types of supportive Title I staff were available to the non-public junior high schools only on a part-time basis. In several instances, the public junior high schools were able to use most of the Title I supportive staff on a full-time basis.

The situation regarding the inadequate supportive staff in the non-public junior high schools was further complicated by the fact that the teacher student ratio was considerably higher for the non-public junior high schools when compared to the public junior high schools for the reading and math resource teachers, who represented the major thrust of the Title I Program. The teacher/student ratios for the non-public junior high schools for math and reading resource teachers were 1:12 and 1:5 respectively compared to 1:6 and 1:3 for the public junior high schools.

Only a few of the non-public junior high schools in this evaluation initiated major Title I activities within the first two months of the beginning of school. Some schools were still involved in the following activities during the months of November and December: (1) identification of Title I students, (2) making reading and math program materials available and (3) hiring Title I staff.

There were several questions asked in the evaluation regarding the involvement of school personnel and staff development activities. In general, the principals in the non-public junior high schools reported that the number of staff increased as a result of the Title I Program. Unfortunately, the principals reported that for the most part, in-service education was not obtained by the staff involved in the implementation of the Title I Program. Additionally, most of the principals felt that there was insufficient decision-making power for the principals.

There was a mixed reaction regarding the effectiveness of the coordination of the reading and math resource teachers and the regular classroom teachers. Some principals reported that the resource teachers and the regular classroom teachers coordinated their activities through conferences and planning materials. However, 2 of the principals felt that the coordination in their schools was not very effective.

Several issues regarding the administration of the Title I Program were explored. Five of the 7 non-public junior high school principals stated that they had Title I guidelines available. However, no principal reported having information regarding the correct procedure for transferring students. Most of the principals felt that another method should be utilized in identifying Title I students.

The principals were asked to rank the performance of the various types of Title I staff. Although the principals felt that the coordination between the math and reading resource teachers and the regular classroom teachers needed improvement, the principals gave the math and reading resource teachers the highest ratings when they were rated with other Title I staff.

The main strengths of the Title I Program as reported by the non-public junior high school principals centered around increased staff and other resources; whereas, the main weaknesses cited involved lack of communication, insufficient decision-making power and the discrepancy that existed between the public and non-public programs.

RECOMMENDATIONS

The major recommendations made by the non-public junior high school principals were:

a. Non-public junior high schools should be included in the Title I Program concentration.

b. Reading should be taught through science.

c. There should be adequate staff for each school.

d. Title I money should be spent for a more comprehensive program.

e. Title I students should be identified on the basis of pupil achievement scores.

f. A combination of census data and pupil achievement scores should be used in identifying Title I students.

g. Reading and math personnel should be assigned mid-August, so they can meet the principal and teachers.

h. Planning sessions should be initiated in mid-August.

i. Title I Program should not get entangled in church vs. state.

j. The school should select the staff.

The consultant recommends the following as possible means for the improvement of the Title I Program in the non-public junior high schools:

a. All differences between the administration and implementation of the Title I Program in the public and non-public schools should be eliminated. Most importantly, the Paid Volunteer Corps (PVC) should be a component part of the Title I Program in the non-public junior high schools.

b. Title I staff should be hired at least one month prior to the beginning of school. Each Title I staff members should receive in-service education during the month of August.

c. More comprehensive guidelines should be made available to principals of Title I schools at least one month prior to the beginning of school.

d. The Title I students should be involved in the evaluation of the Program.

E. PARENT INVOLVEMENT: TITLE I CITY-WIDE ADVISORY COMMITTEE

1. Summary

Based on questionnaires administered to members of the Title I City-Wide Advisory Council, it was determined that the council has made significant progress towards accomplishing its FY 73 goals and objectives. Council members are participating in a wide range of Title I activities. However, responses and observation of council meetings led to the conclusion that better planning, a smaller council, improved information dissemination, and specific parent involvement strategies would further contribute to council effectiveness--and to improved overall parent involvement in the Title I program.

2. Component Objectives

As stated in the Plan of Operation for FY 1973, the D.C. Public Schools Title I City-Wide Advisory Council has the following objectives:

- To serve as a vehicle for direct parental and community involvement in Title I program decision-making;
- To review the Title I proposal and, upon its acceptance, submit it to the Superintendent of Schools for action by the Board of Education;
- To review other Title I matters prior to submission of recommendations, requests, or reports to the Superintendent of Schools.

Parent Advisory Councils (PAC's) at individual Title I schools have similar responsibilities for these schools' Title I programs.

3. Component Structure and Scope

Federal regulations require the involvement of parents and other community members in Title I programs. A city-wide advisory council is required; parent councils are recommended for each Title I school.

PAC's are designed to contribute to parent participation in their children's learning experiences and thus to help raise personal and family morals. Such parental involvement is considered important in increasing student academic gains.

The D.C. Public Schools Title I Program has an official city-wide advisory body which is two-thirds parents and one-third school personnel; the City-Wide Advisory Council shares decision-making with the Local Education Agency (LEA) Board of Education. In addition, there are local PAC's for each school which participate in setting priority needs and are involved in Title I decisions at individual schools; they make recommendations to the city-wide council. All parents of local Title I children are eligible for membership in this local PAC.

4. Evaluation Methodology

Evaluation of the City-Wide Advisory Council was based on a review of the Plan of Operation for FY 1973 and other documents to determine the goals, objectives, and activities planned for the Council. Three City-Wide Council meetings were then attended by an evaluation team member. Finally, a self-administered, semi-structured questionnaire was administered to all council representatives attending the May 1973 meeting. The instrument was distributed and collected at this meeting by an evaluation team member. Questions dealt with advisory council goals and objectives, membership, selection methods, involvement in various Title I components and activities, communications within the Council and with Title I personnel at various levels, and most and least liked experiences of members. Completed questionnaires were received from 28 council members present at the May meeting.

5. Findings and Analysis

Title I City-Wide Advisory Council members reported the following council goals (in descending order of frequency of response):

- The involvement of parents and school personnel in a cooperative effort to increase educational opportunities for Title I children;
- The involvement of parents in the education of their children;
- The improvement of school-home relationships;
- Assistance of Title I personnel in the identification of Title I children.

About two-thirds (19 of 28) of the Council members felt that the Council had achieved 70 percent or more of its FY 73 goals and objectives.

According to the D.C. Public Schools Plan of Operations for FY 1973, two-thirds of council members are to be parents. The list of members for FY 1972 identifies two-thirds of members as "parent delegates" and the other one-third as "staff delegates." While documents specify that two-thirds of all members are to be parent representatives, there is no specific statement that they must be parents of Title I children. The responses of City-Wide Advisory Council members concerning the groups they represented showed that 55 percent were parents of school-age children, 8 percent were community people without school-age children, 16 percent were teachers, and 5 percent categorized themselves as educational aides or as representatives of another group. (It should be noted that not all council members were present at the meeting in question and therefore questionnaires were not returned for every council member.) It appears that the City-Wide Advisory Council does include at least a majority of parents, although there may be parent representatives who are not themselves parents of school-age children or Title I children.

A wide range of member selection mechanisms were reported. Almost a quarter (23 percent) of respondents reported that the principal selected parents for council participation; 29 percent reported PTA selection; 21 percent reported selection by vote of Title I parents, volunteers, etc.; 18 percent reported selection by teachers; and 8 percent reported civic group selection. Thus it appears that there is no standardized selection method. Fully 76 percent of the respondents said they were active participants in local affairs before becoming advisory council members.

Because federal regulations require Title I parent involvement in planning, development, and evaluation of Title I programs, PAC members were questioned about these roles. Only 13 percent of PAC respondents reported being involved in program planning, 18 percent in program development, and 13 percent in program evaluation. Other areas in which participation was reported included program implementation (13 percent); staff selection (5 percent); teacher selection (3 percent); student need identification (13 percent); workshops, seminars, conferences, and the like (18 percent); and miscellaneous activities (3 percent). Since many of these other areas of participation could be considered related to planning, development and evaluation (student need identification and teacher selection, for example, can be considered planning and development activities, respectively), it appears that PAC members do participate in many aspects of Title I programming.

When asked to rate the adequacy of PAC involvement in Title I activities, 25 percent of respondents rated PAC involvement as quite sufficient, 29 percent rated it sufficient, and 16 percent rated it not sufficient. The other 30 percent did not answer this question.

When asked about communications and information-sharing with other Title I program elements, most advisory committee members seemed satisfied. More than three-fourths (79 percent) of respondents reported that workshops, seminars, conferences, newsletters, and other communications techniques were effective or very effective. However, when respondents were asked to list their three "least liked" Title I experiences, inadequate information dissemination was one of the three most frequently listed experiences. Thirty percent of respondents felt that they did not receive enough information about Title I events and activities. Complaints specified were "parents' general unawareness of the Title I program," "not getting information from the city-wide council," "not receiving committee reports," etc.

Least liked experiences also led to some expressions of concern about the actual level of parent participation. Sixteen percent of respondents felt there was a lack of meaningful parent participation, quantitatively and qualitatively, and 18 percent felt that planning and organization of parent meetings was inadequate. Complaints involved meetings that were poorly organized, poorly planned, not started on time or lasted too long. Some of these concerns relate specifically to the operation of the advisory council; the more general comments appear to apply to the overall level of parental involvement in the Title I program as viewed by council members. (Evaluator observation supported council member conclusions about problems in the organization of council meetings.)

City-Wide Advisory Council members reported some other specific council problems. Many respondents felt that the ten hours a week they were permitted to work did not allow them to make the fullest possible contribution to the Title I program; 38 percent of respondents felt that the working hours for council members were too short.

Interestingly, many of the "most liked" experiences reported by council members fit into the same categories as the "least liked" experiences of others. For example, more than one-third (34 percent) of respondents felt that being council members made them well informed. These most liked experiences are shown below in Table 6.22 in order of decreasing response frequency.

TABLE 6.22 MOST LIKED EXPERIENCES OF ADVISORY COUNCIL MEMBERS

Experience	Percent
Being well informed about meetings, events, and activities	34%
Attending meetings, conferences, and workshops	20%
Working with Children	18%
Working with other Advisory Council Members	9%
Understanding Title I Program	9%
Learning to Solve Problems	2%
Parents becoming enthusiastic about Title I Program	2%
Working with teachers	2%
Selecting better teachers	2%
Personal satisfaction (N = 28)	2%

Results of the questionnaire suggest that City-Wide Advisory Council members are generally satisfied with council activities and feel that the council is functioning effectively. Although there is some evidence that participation in substantive planning and in program evaluation may be limited, the council does appear to be properly constituted and fully operational. Major shortcomings seem to involve limited working hours for council members, inadequate information dissemination, and shortcomings in the planning and organization of advisory council meetings.

6. Recommendations

Based on the questionnaire findings and evaluation team observations, the following recommendations are made concerning ways to strengthen the Title I City-Wide Advisory Council:

1. Advisory Council meetings should be more carefully planned, organized, and scheduled.
2. The size of the council should be significantly reduced. The current size hampers operational efficiency and could be contributing to problems with organizing the meetings.
3. The talents of council members and other parents should be more fully utilized, both through the City-Wide Advisory Council and through local PAC's and Title I schools. Strengthened parent involvement efforts are needed to bring parents to the program and make them a part of it.
4. Advisory council members should be allowed to work more than ten hours, so that they are able to contribute maximally to the program.

In addition to these recommendations concerning the City-Wide Advisory Council, it is suggested that more effective parent involvement strategies be devised at other levels in the Title I program.

F. COMMUNITY SURVEY

1. Summary

Since Title I has as a major objective strengthening of linkages between the home and community, a Community Survey of Title I communities was carried out to determine community awareness of and attitudes towards the program.

The survey found relatively low community knowledge of the program; only 17.5 percent of a sample of 488 adult respondents said they were aware of the Title I program. Awareness was greater among respondents in households with children of Title I participation age; 24.9 percent of respondents in households with children were aware of the program, as compared with only 10.7 percent of respondents from households without children of Title I age. Nearly all (98.8 percent) of those who did know about the program said the radio was one source of Title I information; just under half (48.2 percent) said they had received information about the program from neighborhood schools. Familiarity was greatest with the reading and math programs, which receive major Title I emphasis.

The survey was based on a systematic sample and results can be considered representative of the entire Title I community.

2. Purpose

One of the major objectives of the Title I Program in the District of Columbia was to strengthen the linkage between the home and school and the school and community. In order to assess whether this objective was met, the Title I evaluation staff designed a Community Survey to ascertain the level of knowledge and the degree of community participation in the Title I Program.

3. Evaluation Methodology

INSTRUMENT

The Community Survey was to be carried out in communities with Title I schools; a structured questionnaire was used to obtain data from community residents. The items contained within the questionnaire were simple in language so they would be easily understood by the average neighborhood resident. Less than five minutes was required to administer the seven-item questionnaire, and items were structured to enable the interviewer to check the appropriate responses. Prior to the actual interview, the interviewer recorded the block number, cluster number, location of the unit, census tract, corner start factor, and counting direction; all these factors were component parts of the household sampling plan.

SAMPLING PLAN

a. Sample Size

Sample size and precision were determined by the number of categories into which the data were to be divided for analysis, overall statistical validity requirements to assure findings representative of communities containing Title I schools, study resources, and the population of Title I communities. A sampling error of six percent was determined to be appropriate, and a 95 percent confidence level.

Based on the sampling precision desired, the required sample size was determined to be 400; the sample size was then increased by 25 percent in order to account for unit vacancies, demolitions, ineligible respondents, and refusals.

b. Sampling Techniques

Because this was to be a Community Survey, based specifically upon residence in a Title I community, housing units were used as the basic sampling unit. A systematic sampling technique was used to select housing units in which occupants were to be interviewed. Systematic sampling provides a means of determining the number of respondents needed, specifies the probability that any housing unit will be included in the sample, permits an estimation of sampling error, and provides for a determination of the degree of confidence that can be placed upon population estimates made based on findings from the sample.

Once census blocks had been randomly selected and recorded by tract and block number, an interval method was to be used to select housing units. The interval required for each block involved listing all household units in that block, with all appropriate information for the identification of the housing units. The interval required was determined using the formula $K = N/n$, where K is the interval, N the total number of units in the block, and n the desired number of units to be sampled in that block.

With the interval known, field interviewers were able to identify units to be sampled through a field procedure. After locating the sampled block, the interviewer first chose his starting corner by determining which housing unit constituted say, the third, eighth, or twentieth unit in the block. To do this, he was instructed to go to a table of random numbers and choose four single digit numbers. If the numbers 6, 4, 1, 9 came up, they were coded to represent the four block corners. The interviewer then returned to the random number table, and chose single digit numbers until one was chosen which corresponded to one of the block corners (6, 4, 1, or 9). This determined the corner from which he started his interval sampling.

The interviewer then simply counted housing units until the designated unit was reached for interviewing. Housing units are usually counted in a clockwise direction around the block, and clockwise counting was uniformly prescribed for this study, except where the designated housing units were closer to the opposite corner from which the interviewer started his count. In this case, a counter-clockwise counting procedure was used.

The final sampling responsibility of the interviewer was the selection of a respondent within the housing unit. Procedures were designed to obtain adult respondents who were representative of a wide range of ages and were both males and females. Upon arriving at the selected household unit, the interviewer determined the number of adults in the family. For the first household of a particular size, a diagram was used to select the (1) oldest man, (2) youngest man, (3) oldest female or (4) youngest female respondent. See Figure 6.4. On subsequent visits to houses with same number of adults, the interviewer rotated the type of person to be interviewed.

This approach was used to give various categories of adult household members a specific, pre-determined probability of being interviewed. The procedure told the interviewer which person in each housing unit should be interviewed in order to assure appropriate representation of various adult household members, and automatically selected the person

FIGURE 6.4 TYPE OF ADULT INTERVIEWED IN THE HOUSEHOLD

	Number of Adults in the Housing Unit			
Number of Men in the Housing Unit	1 Adult	2 Adults	3 Adults	4 or More
0 Men	(15.3%) Adult	(6.4%) Oldest Woman	(0.8%) Oldest Woman	(1.2%) Youngest Woman
1 Man	(7.9%) Adult	(44.8%) Woman	(5.3%) Youngest Woman	(0.4%) Man
2 Men		(5.7%) Youngest Man	(3.1%) Youngest Man	(1.6%) Youngest Woman
3 Men			(1.8%) Oldest Man	(1.8%) Woman or Youngest Woman
4 or More Men				(3.9%) Youngest Man

to be interviewed at each unit, regardless of household composition. The procedure also took into account the practical problem of the underrepresentation of men during the day. To offset the negative effect of primarily day-time interviewing, several return visits were made to a home in the evening to obtain a male respondent when the plan indicated that a male was to be interviewed.

This somewhat complex sampling technique was used to provide a Community Survey sample which was representative of Title I community residents in the District of Columbia.

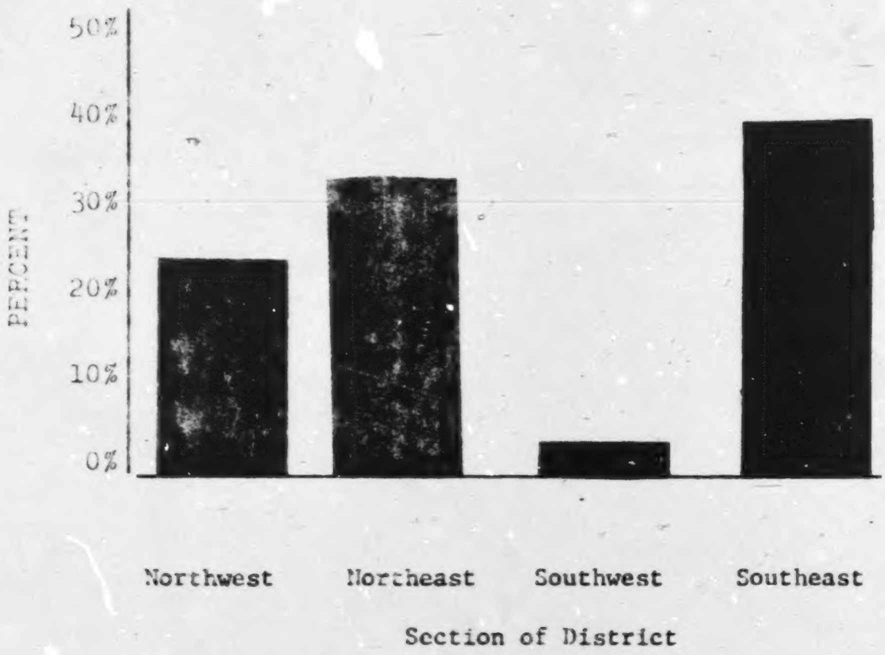
4. Respondent Population

A total of 488 community residents completed the community survey questionnaire. This total reflects the results of the deliberate oversampling; only a few units were lost. Figure 6.5 describes the location of the community survey respondents with respect to the section of the city where they lived at the time the interview was conducted.

As can be seen in Figure 6.4, the two-adult household where the woman was interviewed was the predominating household pattern.

Figure 6.5 shows that the largest proportion (39.5 percent of the respondents in the community survey resided in the Southeast section of the District, while just 3.7 were residents of the Southwest. The percent of respondents from the Northeast and Northwest sections were 31.4 and 25.4 percent, respectively. These proportions correspond generally to Title I community populations.

FIGURE 6.5 LOCATION OF COMMUNITY SURVEY RESPONDENTS



5. Community Survey Findings and Analysis

All respondents were asked if they had a child in the household who attended a public or non-public elementary or junior high school in the District of Columbia. Of the 233 persons who responded affirmatively, 59.2 percent had a child in a public elementary school, 36.5 percent had a child in a public junior high school, and 4.3 percent had a child in a non-public school in grades one through eight. When these adults were asked if they were aware of the Title I Program in the District of

Columbia, the majority of them stated that they were not. Table 6.23 shows the response pattern; only 24.9 percent of these respondents were aware of Title I.

TABLE 6.23 NUMBER AND PERCENT OF RESPONDENTS WITH ELEMENTARY OR JUNIOR HIGH SCHOOL CHILDREN WHO WERE AWARE OF THE TITLE I PROGRAM

Type of School Attended by Children in the Household	Aware of Title I		Not Aware of Title I		Total	
	No.	(%)	No.	(%)	No.	(%)
Elementary	35	25.4	103	74.6	138	100.0
Junior High	19	22.4	66	77.6	85	100.0
Non-public (Grades 1 thru 8)	4	40.0	6	60.0	10	100.0
TOTAL	58	24.9	175	75.1	233	100.0

Households that did not contain children who attended public or non-public elementary and/or junior high schools in the District of Columbia were even less likely to be aware of the Title I Program. Only 10.7 percent of these respondents were aware of the Title I Program. Of the total group of 485 respondents to the question: Are you familiar with the Title I Program in the District of Columbia schools? Just 85, or 17.5 percent, answered affirmatively; 82.5 percent were unaware of the Title I program at least by name. Although only about one-quarter of households with young school-age children were aware of Title I, this was about 2 1/2 times the percent of awareness of households without such children. Thus program awareness appears rather low, particularly among families without young school-age children.

The 85 respondents who knew about the Title I program were asked the aspects of the program with which they were familiar. Listed below are program elements with the corresponding numbers and percents of the 85 respondents who indicated familiarity with them. (The respondents checked all elements that were known to them.)

Title I Program Element	Number and Percent of the 85 Respondents Familiar with Title I and Program Element
Reading Program	43 (50.6%)
Math Program	35 (41.2%)
Speech Services	25 (29.4%)
Clothing	24 (28.2%)
Medical Services	24 (28.2%)
Cultural Program	22 (25.9%)
Tutoring	20 (23.5%)
Counseling	17 (20.0%)

The above information reveals that respondents who were familiar with the Title I Program were most likely to know about the reading and math programs and least likely to be aware of the counseling program. Since the reading and math programs receive special Title I emphasis, this level of awareness is not surprising.

The 85 respondents who were familiar with the Title I Program were also asked how they got information about the program. Nearly all the respondents stated that the radio was a source of Title I information;

almost half of the respondents said they had also received information about the Title I Program from the neighborhood schools. The TV was the least likely source of information. Listed below are the number and percent of the 85 respondents familiar with the Title I Program who named each source of information. (The respondents were to check all the sources that applied.)

Source of Information About the Title I Program	Number and Percent of the 85 Respondents Familiar with Title I Who Indicated the Specific Source of Information
Radio	84 (98.8%)
Neighborhood Schools	41 (48.2%)
Community Organizations	9 (10.6%)
Word-of-mouth	12 (14.1%)
Newspaper	3 (3.5%)
TV	2 (2.4%)

Respondents were asked whether they had been invited to participate in Title I activities; 38.8 percent of the respondents familiar with the Title I Program stated that they were invited to participate. Of this group of 33 respondents, the following numbers participated in the activities specified.

Title I Activity	Number of Participating Respondents
Title I Parent Advisory Council Meetings	5
Workshops or Training Sessions	5
Volunteering in the Classroom or School	14

The 85 respondents familiar with the Title I program were asked to give an assessment of the worth of the program to the community with respect to (1) whether the community has improved because of the Title I Program, and (2) whether they felt there was a closer relationship between the schools and the community because of the Title I Program. Only 29 respondents with children in elementary and/or junior high schools provided opinions concerning community benefit. Table 6.24 reveals that the majority of the 29 respondents to this item felt that the community did benefit from the Title I Program. A total of 55.2 percent felt the community had been improved by the program, and 62.1 percent felt there was a closer relationship between the schools and the community.

COMMUNITY SURVEY SUMMARY OF FINDINGS

Of the 488 respondents to the community survey, 85 or 18 percent were aware of the Title I Program in the District of Columbia. However, among the 233 respondents who lived in households with children in elementary or junior high schools, 58 or 25 percent were aware of the Title I Program. It was felt that the level of awareness among the adults who lived in households with children in elementary and/or junior high schools was moderately low in view of the fact that the majority of the children in the households surveyed attended Title I schools.

Most of the respondents who were familiar with the Title I Program were aware of the reading and math programs. The least known Title I services were: (1) counseling. (2) tutoring and (3) cultural programs. More than 26 percent of the respondents who were aware of the Title I Program knew about the (1) medical services, (2) clothing program and (3) speech services.

TABLE 6.24 ASSESSMENT OF COMMUNITY BENEFIT BY RESPONDENTS FROM HOUSEHOLDS WITH CHILDREN WHO ATTENDED ELEMENTARY AND/OR JUNIOR HIGH SCHOOLS

(N = 29 Respondents Who Replied)

Type of School Attended by Children in the Household	Community Improvement			Closer Relationship Between Schools and Community		
	Yes	No	Not Sure	Yes	No	Not Sure
Elementary	7 (43.8%)	3 (18.7%)	6 (37.5%)	9 (56.3%)	4 (25.0%)	3 (18.7%)
Junior High	7 (63.6%)	2 (18.2%)	2 (18.2%)	7 (63.6%)	3 (27.3%)	1 (9.1%)
Non-Public (Grades 1 thru 8)	2 (100.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	0 (0.0%)	0 (0.0%)
Total	16 (55.2%)	5 (17.2%)	8 (27.6%)	18 (62.1%)	7 (24.1%)	4 (13.8%)

A small percent of the respondents had direct experience with the Title I Program. Very few of the respondents had involvement in the Parent Advisory Council or the training sessions designed especially for community residents. Fourteen respondents had assisted in the classroom on a voluntary basis.

Comparisons were made among the 233 respondents who lived in households containing children attending elementary, public junior high and/or non-public junior high schools on two items. When the respondents were asked if they were aware of the Title I Program the following results were obtained:

- 35 (25 percent) of the respondents in households containing elementary children responded affirmatively;
- 19 (22 percent) of the respondents in households containing public junior high school children responded affirmatively and
- 4 (40 percent) of the respondents in households containing non-public school children responded affirmatively.

The second item where cross analysis was performed compared households with children in the three types of schools relative to responses regarding opinions of the impact of the Title I Program in the community. Only 29 respondents living in households with elementary and junior high school children responded to the item. The following results were obtained:

- both of the 2 respondents in households containing children in non-public schools felt that the Title I Program resulted in community improvement and a closer relationship between the school and the community;
- 7 (64 percent) of the respondents in households containing public junior high school children felt that the Title I Program resulted in community improvement, and the same percent felt that the Title I Program facilitated a closer relationship between the school and the community and

- among the respondents in homes with elementary school children, 7 (44 percent) felt that the Title I Program resulted in community improvement and 9 (56 percent) stated that the Title I Program enhanced a closer relationship between the school and the community.

RECOMMENDATIONS

The consultant recommends the following to improve the knowledge level of the community regarding the Title I Program.

a. A public relations firm should be employed to develop an educational campaign geared to informing the public of Title I and how they can facilitate the accomplishment of Program goals.

b. Each Title I school should have a committee of staff/faculty to plan for the involvement of volunteers in order to ensure the maximum participation of the community.

c. The Title I Program should be responsible for a centralized information service that would prepare written materials to be distributed through the schools.

VII

CONCLUSIONS AND RECOMMENDATIONS

As for program effectiveness in reading, students using the D.C. Heath materials had the highest Reading Total adjusted mean gain score for the second grade. The non-Partnership group had the highest Reading Total adjusted mean gain score for the third grade. However, second grade students using McGraw-Hill materials had a Reading Total adjusted mean gain score that was higher than that of the third grade non-Partnership. In Mathematics, students using the D.C. Heath materials had the highest Math Total adjusted mean gain score for both the second and third grades. The D.C. Heath group also had the lowest average per child dollar expenditure; that is, it was the most cost-effective of the three competitive Reading Partnership groups.

D. STAFF DEVELOPMENT CONCERNS

The Staff Development component of Title I received very mixed reviews from program personnel. While many staff members felt that the sessions were valuable, they typically did not feel that they received enough training or that the subject matter met the needs of their particular positions. There were wide variations in reported effectiveness of training. It appears that in-service training is of considerable value, provided it is well planned, covers topics of particular concern to the participating personnel, and includes regular and fairly frequent sessions. It is therefore recommended that the entire Staff Development program be reviewed in detail and its content redesigned to provide some generalized in-service training and expanded staff development activities directed at specific categories of personnel. Content should be specifically appropriate to the job responsibilities of the in-service participants. For paraprofessionals, some in-service training might be replaced with credit courses which would contribute to the development of career ladders to professional positions.

E. COMMUNICATIONS AND ROLE PROBLEMS

Title I activities at the individual school level were sometimes hampered in FY 1973 by problems in communication between the schools and the Title I Office, and by role conflicts and misunderstandings. Not infrequently, Title I personnel were asked by principals or other school personnel to carry out activities which were not appropriately part of their duties. Title I Staff Assistants, for example, often spent considerable time carrying out duties unrelated to Title I. Efforts must be made to clarify roles and improve cooperation and coordination within the school. It is suggested that orientation sessions be held early in the school year with the participation of Title I central administrative staff, principals, classroom teachers, and Title I personnel. These sessions should be directed specifically at the description and clarification of roles, with particular emphasis upon stating what non-instructional tasks paraprofessional Title I personnel should and should not be assigned. In addition, Title I personnel (including paraprofessionals) should be included in periodic faculty meetings within the schools, and special joint in-service sessions should be arranged to improve coordination and cooperation among school personnel. Communication with the Title I central office

VII. CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations for each component evaluation have been stated within the appropriate section. However, comparative review of findings, conclusions, and recommendations from the individual self-assessments by various personnel participating in the Title I program--as well as analysis and conclusions reached by the evaluation team based on performance data, observation, and document review--suggests several major areas of concern for the entire Title I program within the District of Columbia. Major conclusions and recommendations which apply to many components and personnel categories are presented briefly below; the evaluation team believes they represent the key findings and recommendations emerging from the evaluation.

A. PERSONNEL CONCERN AND COMMITMENT

Both self-evaluations of staff members and assessments by other school personnel reflected a commitment and concern for students on the part of the Title I staff. When personnel were asked to specify the most valuable experiences related to Title I, they very often reported that being able to help children learn was their greatest satisfaction. Paraprofessionals very often mentioned the interaction with children and the ability to help them as a key benefit of their Title I participation. Professional personnel also expressed a concern with improving school-community relations and interaction with parents. However, the Community Survey indicated that knowledge of the Title I program is still limited to a minority even of Title I aged children. Personnel concern and commitment might be better channeled towards parent involvement if specific parent contact skills were taught to Title I personnel and if time were allocated for more efforts to involve parents and the community in the Title I program. Program components like the Parent Volunteer Corps, if expanded, might help meet this need.

B. VALUE OF PARAPROFESSIONAL PERSONNEL

Throughout the evaluation, professional personnel typically gave high marks to paraprofessionals when asked to identify the personnel who were most helpful in meeting program goals or to indicate the effectiveness of particular categories of staff. Teachers, especially regular classroom teachers, considered the Educational Aides to be extremely helpful; Parent Volunteer Corps members and Title I Staff Assistants were also viewed very positively. Pupil Personnel Service paraprofessionals seemed similarly valuable. It appears that not all budgeted slots in some of these paraprofessional categories were filled during FY 1973. In future years, all budgeted positions should be kept filled; expansion of these categories, particularly those related directly to the classroom, seems desirable if funds become available.

C. COMPETITIVE READING PROGRAM

The Competitive Reading Program is viewed positively by most classroom and resource teachers using CRP materials; classroom teachers generally reported CRP materials to be as good as or better than the basal readers. Although late arrival of materials was a problem in FY 1973, it appears that the materials were widely used.

should be improved through the initiation of specific communications and reporting procedures for school and Title I personnel, and by an emphasis by Title I administrative staff upon maintaining regular communications with the Title I schools.

F. ADMINISTRATIVE CONCERNS

A variety of difficulties were identified which relate to administrative responsibilities. There were reported problems in obtaining materials and equipment. Title I students were identified too late in the school year (partly because pretest scores were not available until long after the tests were administered). There was concern by some Title I personnel that their roles were not properly defined and clarified by the Central Office. Finally, there was little evidence of an ongoing monitoring effort by the Title I office itself. Most of these problems can be traced to an inadequate administrative staff. The Title I program cannot be expected to operate smoothly unless additional administrative staff are hired to take on some of the responsibilities for liaison, monitoring, and procurement and distribution of materials and equipment.

G. FUNDING LIMITATIONS

Many of the expressed and observed difficulties of the Title I program can be traced to limited funds. Classroom teachers need more educational aides. Pupil Personnel Services personnel typically have caseloads far too large to service adequately. Parent Volunteer Corps members can work only very limited hours and cannot remain in the program for the entire school year. Many identified children cannot receive the in-depth services they need so badly, and siblings generally cannot be served at all, even though a family approach to services would probably enhance effectiveness. It is perhaps unrealistic to expect adequate funds to become available for expanding successful components like the Parent Volunteer Corps and the educational aide effort and providing instructional and support services to all Title I identified children. Resources have increased, but are still far short of demand. In the absence of additional funds, it appears desirable for the Title I program to better focus its efforts, to provide more intensive services to a smaller number of students. This presents major difficulties in selection, but a smaller group of students might receive sufficient services to significantly improve in both basic skills and social adjustment. The present approach does not permit crisis prevention; the most that can be provided is crisis intervention. In the long run, concentration of resources might prove more cost-effective. At a minimum, identified students should be provided with several levels of services (for example, special reading instruction and Pupil Personnel Services) rather than just one, even if that means a smaller total number of children will be served.